

Appendix H. - Power reduction verification

Per the May 2017 TCBC Workshop notes, demonstration of proper functioning of the power reduction mechanism is required to support the corresponding SAR Configurations.

Procedures for determining proximity sensor triggering distances

(KDB 616217 D04v01r02 § 6.2)

The distance verification procedure was performed according to the following procedure:

- A base station simulator was used to establish an RF connection and to monitor the power levels. The device being tested was placed below the relevant section of the phantom with the relevant side or edge of the device facing toward the phantom. For Licensed modes, Radio SAR Index(RSI) on the device UI was monitored to determine the triggering state.
- 2. The device was moved toward and away from the phantom to determine the distance at which the mechanism triggers and the output power is reduced, per KDB Publication 616217 D04v01r02.Each applicable test position was evaluated. The distance was conformed to be the same or larger (more conservative) than the minimum distances provided by the manufacturer.
- 3. Step 1 and 2 were repeated for the relevant modes, as appropriate
- 4. Steps1 through 3 were repeated for all distance-based power reduction mechanisms.

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SAR Test Configuration

Since the Dedicated Host Approach is applied, the standalone SAR test exclusion procedure in KDB447498 4.3.1 is applied in conjunction with KDB 616217 4.3 to determine the minimum test separation distance:

When the separation distance from the antenna to an adjacent edge is \leq 50 mm, a distance of 50 mm is applied to determine SAR test exclusion.

When the separation distance from the antenna to an adjacent edge is > 50 mm, the actual antennato-edge separation distance is applied to determine SAR test exclusion

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| | | | Device Conf | figurations for | SAR Testing | |
|---------|-------------------------------------|------|-------------|-----------------|-------------|--------|
| Antenna | Band | Rear | Тор | Left | Right | Bottom |
| Main 1 | UMTS Band 5 | Yes | Yes | Yes | Yes | No |
| Main 1 | UMTS Band 4 | Yes | Yes | Yes | Yes | No |
| Main 1 | UMTS Band 2 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 2 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 4 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 5 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 7 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 12 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 13 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 14 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 25 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 26 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 30 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE TDD Band 41(PC2) | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE TDD Band 41(PC3) | Yes | Yes | Yes | Yes | No |
| Sub 2 | LTE TDD Band 48 | Yes | No | Yes | Yes | Yes |
| Main 1 | LTE Band 66 | Yes | Yes | Yes | Yes | No |
| Main 1 | LTE Band 71 | Yes | Yes | Yes | Yes | No |
| Main 1 | NR Band n2 | Yes | Yes | Yes | Yes | No |
| Main 1 | NR Band n5 | Yes | Yes | Yes | Yes | No |
| Main 1 | NR Band n25 | Yes | Yes | Yes | Yes | No |
| Main 1 | NR Band n30 | Yes | Yes | Yes | Yes | No |
| Main 1 | NR Band n41 (PC3) | Yes | Yes | Yes | Yes | No |
| Main 1 | NR Band n41 (PC2) | Yes | Yes | Yes | Yes | No |
| Sub 2 | NR Band n48 | Yes | No | Yes | Yes | Yes |
| Main 1 | NR Band n66 | Yes | Yes | Yes | Yes | No |
| Main 1 | NR Band n70 | Yes | Yes | Yes | Yes | No |
| Main 1 | NR Band n71 | Yes | Yes | Yes | Yes | No |
| Main 2 | NR Band n77/78 (PC3) | Yes | No | Yes | Yes | Yes |
| Main 2 | NR Band n77/78 (PC2) | Yes | No | Yes | Yes | Yes |
| Sub 1 | LTE FDD With FR1 ENDC (LTE Band 2) | Yes | No | Yes | Yes | Yes |
| Sub 1 | LTE FDD With FR1 ENDC (LTE Band 4) | Yes | No | Yes | Yes | Yes |
| Sub 1 | LTE FDD With FR1 ENDC (LTE Band 7) | Yes | No | Yes | Yes | Yes |
| Sub 1 | LTE FDD With FR1 ENDC (LTE Band 25) | Yes | No | Yes | Yes | Yes |
| Sub 1 | LTE FDD With FR1 ENDC (LTE Band 30) | Yes | No | Yes | Yes | Yes |
| Sub 1 | LTE FDD With FR1 ENDC (LTE Band 66) | Yes | No | Yes | Yes | Yes |
| WiFi 1 | 2.4 GHz WLAN / Bluetooth | Yes | Yes | No | Yes | No |
| WiFi 1 | 5 GHz WLAN | Yes | Yes | No | Yes | No |
| WiFi 2 | 2.4 GHz WLAN | Yes | Yes | Yes | No | No |
| WiFi 2 | 5 GHz WLAN | Yes | Yes | Yes | No | No |

⁻ Note: All test configurations are based on front view.

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Antennas <50mm to adjacent edges: According to KDB 447498 D01v06, if the calculated threshold value >3 then SAR test is required.

Antennas > 50mm to adjacent edges: According to KDB 447498 D01v06, if the power threshold is less than the output power, SAR is required.

Per FCC KDB 447498 D01v06, The SAR exclusion threshold for distance < 50 mm is defined by the following equation:

$$\frac{MaxPowerofChannel(mW)}{TestSeparationDistance(mm)}*\sqrt{Frequency(GHz)} \leq 3.0(1 \text{g SAR}), 7.5(10 \text{g SAR})$$

Antennas >50mm to adjacent edges: According to KDB 447498 D01v06, if the power threshold is less than the output power, SAR is required.

Per KDB 447498 D01v06 Sec 4.3.1 b) For 100 MHz to 6 GHz and test separation distances > 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following (also illustrated in Appendix B)

- 1) {[Power allowed at numeric threshold for 50 mm in step a)] + [(test separation distance 50 mm) \cdot (f(MHz)/150)]} mW, for 100 MHz to 1500 MHz
- 2) {[Power allowed at numeric threshold for 50 mm in step a)] + [(test separation distance 50 mm) \cdot 10]} mW, for > 1500 MHz and \leq 6 GHz

Per FCC KDB Publication 616217 D04v01r02, the rear surface and edges of tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR Exclusion Threshold in 447498 D04 v06 can be applied to determine SAR test exclusion for adjacent edge configurations. The closet distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

This device was tested considering the Rear/left/right/top/bottom side for simultaneous transmission analysis of multiple transmitter conditions. The bottom side of the upper antenna and the top surface of the lower antenna excluded according to FCC KDB 616217 D04v01r02.

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1. Power Reduction Verification for Main 1 Ant

This device utilizes a power reduction mechanism for some wireless modes under some conditions when the device is being used in close proximity to the user's body for Main1 Ant

FCC KDB Publication 616217D04v01r02 section 6 was used as a guideline for selection SAR test distances for this device when being used in Proximity use conditions.

| | Mechanism | | | | Radio S/ | AR Index | |
|--------|-----------|----------------|-----------------|-------|----------|----------|-------|
| | | Mechanism | Mode/Band | RSI=0 | RSI=2 | RSI=1 | RSI=3 |
| 1st | 2nd | 3rd | | Free | 1st | 2nd | 3rd |
| Grip#2 | Grip#1 | Grip#3 | UMTS Band 5 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | UMTS Band 4 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | UMTS Band 2 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | LTE Band 2 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | LTE Band 4 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | LTE Band 5 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | LTE Band 7 | 0 | 2 | 1 | 3 |
| Grip#2 | | | LTE Band 12 | 0 | 2 | | |
| Grip#2 | | | LTE Band 13 | 0 | 2 | | |
| Grip#2 | | | LTE Band 14 | 0 | 2 | | |
| Grip#2 | Grip#1 | Grip#3 | LTE Band 25 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | LTE Band 26 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | LTE Band 30 | 0 | 2 | 1 | 3 |
| Grip#2 | | | LTE Band 38 | 0 | 2 | | |
| Grip#2 | | | LTE Band 41 PC3 | 0 | 2 | | |
| Grip#2 | | | LTE Band 41 PC2 | 0 | 2 | | |
| Grip#2 | Grip#1 | Grip#3 | LTE Band 66 | 0 | 2 | 1 | 3 |
| Grip#2 | | | LTE Band 71 | 0 | 2 | | |
| Grip#2 | Grip#1 | Grip#3 | NR Band n2 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | NR Band n5 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | NR Band n25 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | NR Band n30 | 0 | 2 | 1 | 3 |
| Grip#2 | | | NR Band n41 PC3 | 0 | 2 | | |
| Grip#2 | | | NR Band n41 PC2 | 0 | 2 | | |
| Grip#2 | Grip#1 | Grip#3 | NR Band n66 | 0 | 2 | 1 | 3 |
| Grip#2 | Grip#1 | Grip#3 | NR Band n70 | 0 | 2 | 1 | 3 |
| Grip#2 | | and the second | NR Band n71 | 0 | 2 | | |

Note: This device uses different Radio SAR Index(RSI) to configure different time averaged power level based on certain exposure scenarios. For this model, RSI=1,3 represents the case when the grip sensor #1,#3 is active, RSI=2 represents the case when the grip sensor #2 is active, and RSI=0 represents the case where the device cannot detect the use proximity condition.

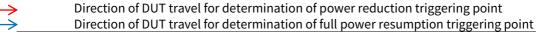
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1.1 Proximity sensor triggering Distance Verification.



Proximity Sensor Trigger Distance Assessment KDB 616217 D04 § 6.2 (Rear / Top / Left / Right side) LEGEND



| | Trigger dist | tance - Rear | Trigger dist | ance - Top |
|--------------------------|----------------------------|-------------------------------|----------------------------|-------------------------------|
| Tissue simulating liquid | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] |
| 700 MHz | 20 | 25 | 20 | 25 |
| 800 MHz | 20 | 25 | 20 | 25 |
| 1 750 MHz | 20 | 25 | 20 | 25 |
| 1 900 MHz | 20 | 25 | 20 | 25 |
| 2 300 MHz | 20 | 25 | 20 | 25 |
| 2 600 MHz | 20 | 25 | 20 | 25 |

Distance Measurement verification for Proximity sensor #2

| | Trigger distan | ce - Left side |
|--------------------------|-------------------------------|----------------------------------|
| Tissue simulating liquid | Moving toward phantom [mm] | Moving away from phantom [mm] |
| 700 MHz | 11 | 17 |
| 800 MHz | 11 | 17 |
| 1 750 MHz | 11 | 17 |
| 1 900 MHz | 11 | 17 |
| 2 300 MHz | 11 | 17 |
| 2 600 MHz | 11 | 17 |

Distance Measurement verification for Proximity sensor #1

| | Trigger dista | nce – Right side |
|--------------------------|----------------------------|----------------------------------|
| Tissue simulating liquid | Moving toward phantom [mm] | Moving away from phantom [mm] |
| 700 MHz | 11 | 17 |
| 800 MHz | 11 | 17 |
| 1 750 MHz | 11 | 17 |
| 1 900 MHz | 11 | 17 |
| 2 300 MHz | 11 | 17 |
| 2 600 MHz | 11 | 17 |

Distance Measurement verification for Proximity sensor #3

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Rear side – EUT Moving toward (trigger) to the Phantom Sensor #2

| Distance [com] | | Distance to DUT Output power level | | | | | | | | | | | |
|----------------|-----|------------------------------------|-----|-----|-----|---------|---------|---------|---------|---------|--|--|--|
| Distance [mm] | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | | | |
| UMTS Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| LTE Low Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| LTE Mid Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| LTE High Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR Low Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR Mid Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR High Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |

Rear side – EUT Moving away (Release) from the Phantom Sensor #2

| Distance[mm] | | Distance to DUT Output power level | | | | | | | | | | | |
|---------------|---------|------------------------------------|---------|---------|---------|-----|-----|-----|-----|-----|--|--|--|
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | |
| UMTS Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| LTE Low Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| LTE Mid Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| LTE High Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Low Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Mid Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR High Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |

Based on the most conservative measured triggering distance of 20mm, additional Body SAR measurements were required at 19mm from rear side for the above modes.

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Top side – EUT Moving toward (trigger) to the Phantom Sensor #2

| Topoda I a managara (m. 666) to the managara ma | | | | | | | | | | | | |
|-------------------------------------------------|------------------------------------|-----|-----|-----|-----|---------|---------|---------|---------|---------|--|--|
| Distance | Distance to DUT Output power level | | | | | | | | | | | |
| Distance | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | | |
| UMTS Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| LTE Low Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| LTE Mid Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| LTE High Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| NR Low Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| NR Mid Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| NR High Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |

Top side – EUT Moving away (Release) from the Phantom Sensor #2

| Distance[mm] | | Distance to DUT Output power | | | | | | | | | | | |
|---------------|---------|------------------------------|---------|---------|---------|-----|-----|-----|-----|-----|--|--|--|
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | |
| UMTS Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| LTE Low Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| LTE Mid Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| LTE High Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Low Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Mid Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR High Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |

Based on the most conservative measured triggering distance of 20mm, additional Body SAR measurements were required at 19mm from top side for the above modes.

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Left side – EUT Moving toward (trigger) to the Phantom Sensor #1

| | | | 1 00 1 | | | | | | | | | |
|---------------------------|------------------------------------|-----|--------|-----|-----|---------|---------|---------|---------|---------|--|--|
| Distance | Distance to DUT Output power level | | | | | | | | | | | |
| Distance | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | | |
| UMTS Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| LTE Band 5/26 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| LTE Band 2/4/25/30/66 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| NR Band n5 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| NR Band n2/25/30/66/70 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |

Left side – EUT Moving away (Release) from the Phantom Sensor #1

| Distance[mm] | | Distance to DUT Output power level | | | | | | | | | | | |
|---------------------------|---------|------------------------------------|---------|---------|---------|-----|-----|-----|-----|-----|--|--|--|
| Distance[mm] | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | | | |
| UMTS Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| LTE Band 5/26 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| LTE Band 2/4/25/30/66 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Band n5 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Band n2/25/30/66/70 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |

Based on the most conservative measured triggering distance of 11mm, additional Body SAR measurement were required at 10mm from Left side for the above modes.

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Right side – EUT Moving toward (trigger) to the Phantom Sensor #3

| Right side | LOT MOVI | ing toward | 4 (111661 | , to the r | nancon s | <u> </u> | | | | | | |
|---------------------------|------------------------------|------------|-----------|------------|----------|----------|---------|---------|---------|---------|--|--|
| Distance. | Distance to DUT Output power | | | | | | | | | | | |
| Distance | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | | |
| UMTS Band | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| LTE Band 5/26 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| LTE Band 2/4/25/30/66 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| NR Band n5 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |
| NR Band n2/25/30/66/70 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | |

Right side – EUT Moving away (Release) from the Phantom Sensor #3

| Diete week week | | | | Distance t | o DUT Outp | out power | level | | | |
|---------------------------|---------|---------|---------|------------|------------|-----------|-------|-----|-----|-----|
| Distance[mm] | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| UMTS Band | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| LTE Band 5/26 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| LTE Band 2/4/25/30/66 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| NR Band n5 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| NR Band n2/25/30/66/70 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |

Based on the most conservative measured triggering distance of 11mm, additional Body SAR measurements were required at 10mm from Right side for the above modes.

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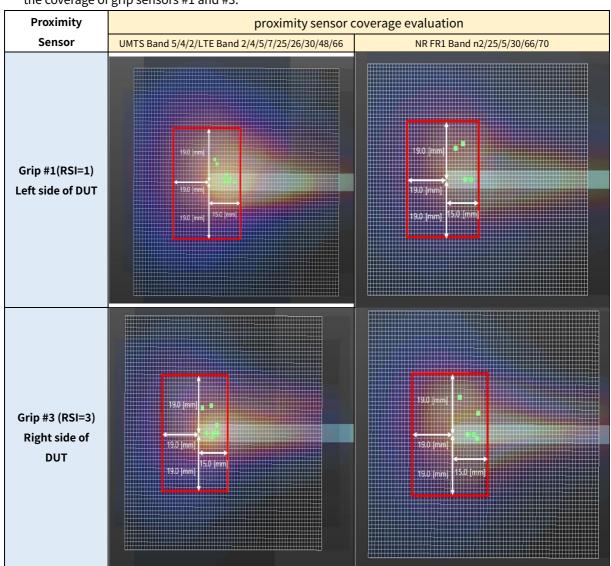


1.2 Proximity Sensor Coverage for SAR measurements

(KDB 616217 D04v01r02 § 6.3)

As there is spatial offset between the Main 1 antenna and the proximity sensor #1 and the proximity sensor #3 proximity sensor coverage need to be assessed. According to the FCC KDB 616217 D04v01r02 § 6.3, the coverage of the proximity sensor was evaluated as follows.

It was verified that the SAR Peak measurement results of LTE/UMTS/NR bands on Main 1 antenna whose output Power was reduced by the DUT's proximity sensors #1 and #3 were measured within the coverage of grip sensors #1 and #3.



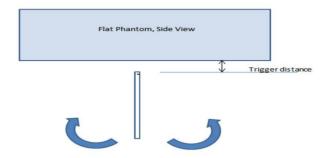
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1.3 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02 § 6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to $\pm 45^\circ$. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up $\pm 45^\circ$.



Proximity sensor tilt angle assessment (Top side) KDB 616217 § 6.4

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Top side) Sensor #2

| | Minimum | | | | | Power | reduct | ion sta | tus | | | |
|-----------------------------|-----------------------------------------------------------------------|------|------|------|------|---------------|--------|-------------|-----|-----|-----|-------------|
| Tissue Simulating Liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | - 10 ° | 0° | 10 ° | 20° | 30° | 40° | 45 ° |
| 700 MHz | 20 mm | On | On | On | On | On | On | On | On | On | On | On |
| 800 MHz | 20 mm | On | On | On | On | On | On | On | On | On | On | On |
| 1 750 MHz | 20 mm | On | On | On | On | On | On | On | On | On | On | On |
| 1 900 MHz | 20 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 300 MHz | 20 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 600 MHz | 20 mm | On | On | On | On | On | On | On | On | On | On | On |

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Left side) Sensor #1

| | | The first industries to 1 to kinney oction 115gering (Letteride, oction 112 | | | | | | | | | | |
|-------------------|----------------|-----------------------------------------------------------------------------|------|------|------|-------|--------|---------|-----|-----|-----|-----|
| | Minimum | | | | | Power | reduct | ion sta | tus | | | |
| | distance | | | | | | | | | | | |
| Tissue Simulating | at which power | | | | | | | | | | | |
| Liquid | reduction was | -45° | -40° | -30° | -20° | -10° | 0° | 10° | 20° | 30° | 40° | 45° |
| • | maintained | | | | | | | | | | | |
| | over-45° | | | | | | | | | | | |
| 700 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 800 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 1 750 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 1 900 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 300 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 600 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |

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Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Right side) Sensor #3

| | Minimum | | | | | Power | reduct | ion sta | tus | | | |
|-----------------------------|-----------------------------------------------------------------------|------|------|------|------|-------|--------|-------------|-----|-----|-----|-----|
| Tissue Simulating Liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10 ° | 20° | 30° | 40° | 45° |
| 700 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 800 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 1 750 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 1900 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 300 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 600 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |

1.4 Resulting test positions for Body SAR measurements

| Wireless technologies | Position | § 6.2 Triggering Distance [mm] | § 6.3 Coverage | § 6.4 Tilt Angle | Worst case distance for Body SAR [mm] |
|-----------------------|----------|--------------------------------------|-------------------|---------------------|------------------------------------------------|
| | Rear | 20 | N/A | N/A | 19 |
| Main 1 Ant | Тор | 20 | N/A | N/A | 19 |
| Main 1 Ant | Right | 11 | N/A | N/A | 10 |
| | Left | 11 | N/A | N/A | 10 |

Note: FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in use conditions.

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2. Power Reduction Verification for Main 2 Ant

| Mechanism | | Radio S | AR Index |
|---------------|-----------------|---------------|--------------|
| Mechanism 1st | Mode/Band | RSI=0 Free | RSI=4 1st |
| Grip #4 | NR Band n77 PC3 | 0 | 4 |
| Grip #4 | NR Band n77 PC2 | 0 | 4 |
| Grip #4 | NR Band n78 PC3 | 0 | 4 |
| Grip #4 | NR Band n78 PC2 | 0 | 4 |

Note: This device uses different Radio SAR Index(RSI) to configure different time averaged power level based on certain exposure scenarios. For this model, RSI=4 represents the case when the grip sensor #4 is active, and RSI=0 represents the case where the device cannot detect the use condition.

2.1 Proximity sensor triggering Distance Verification.



Proximity Sensor Trigger Distance Assessment KDB 616217 D04 § 6.2 (Rear / Bottom/ Right side) LEGEND



Direction of DUT travel for determination of power reduction triggering point Direction of DUT travel for determination of full power resumption triggering point

| | | distance ear | | distance ttom | Trigger distance -Right | | |
|--------------------------|-------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|--|
| Tissue simulating liquid | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] | |
| 3500 MHz | 19 | 25 | 19 | 25 | 11 | 17 | |

Distance Measurement verification for Proximity sensor

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Rear side – EUT Moving toward (trigger) to the Phantom

| Distance | Distance to DUT Output power (dBm) | | | | | | | | | | | | |
|-----------------|------------------------------------|-----|-----|-----|-----|---------|---------|---------|---------|---------|--|--|--|
| Distance | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | | | |
| NR Band n77 PC3 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR Band n77 PC2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR Band n78 PC3 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR Band n78 PC2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |

Rear side – EUT Moving away (Release) from the Phantom

| Distancelment | | Distance to DUT Output power (dBm) | | | | | | | | | | | |
|-----------------|---------|------------------------------------|---------|---------|---------|-----|-----|-----|-----|-----|--|--|--|
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | |
| NR Band n77 PC3 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Band n77 PC2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Band n78 PC3 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |
| NR Band n78 PC2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | |

Based on the most conservative measured triggering distance of 19mm, additional Body SAR measurements were required at 18mm from rear side for the above modes.

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Bottom side – EUT Moving toward (trigger) to the Phantom

| | | 0 | , 00 | , | | | | | | | | | | |
|-----------------|-----|------------------------------------|------|-----|-----|---------|---------|---------|---------|---------|--|--|--|--|
| Distance | | Distance to DUT Output power (dBm) | | | | | | | | | | | | |
| Distance | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | | | | |
| NR Band n77 PC3 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | | |
| NR Band n77 PC2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | | |
| NR Band n78 PC3 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | | |
| NR Band n78 PC2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | | |

Bottom side – EUT Moving away (Release) from the Phantom

| Distancelment | | | | Distance to | DUT Outp | ut power | (dBm) | | | | | |
|-----------------|---------|---------|---------|-------------|----------|----------|-------|-----|-----|-----|--|--|
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | |
| NR Band n77 PC3 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| NR Band n77 PC2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| NR Band n78 PC3 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| NR Band n78 PC2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |

Based on the most conservative measured triggering distance of 19mm, additional Body SAR measurements were required at 18mm from bottom side for the above modes.

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Right side – EUT Moving toward (trigger) to the Phantom

| | | (***68**) | | | | | | | | | | | |
|-----------------|------------------------------------|-----------|-----|-----|-----|---------|---------|---------|---------|---------|--|--|--|
| Distance | Distance to DUT Output power (dBm) | | | | | | | | | | | | |
| Distance | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | | | |
| NR Band n77 PC3 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR Band n77 PC2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR Band n78 PC3 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| NR Band n78 PC2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |

Right side – EUT Moving away (Release) from the Phantom

| Distance[man] | | Distance to DUT Output power (dBm) | | | | | | | | | | | | |
|-----------------|---------|------------------------------------|---------|---------|---------|-----|-----|-----|-----|-----|--|--|--|--|
| Distance[mm] | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | | | | |
| NR Band n77 PC3 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |
| NR Band n77 PC2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |
| NR Band n78 PC3 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |
| NR Band n78 PC2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |

Based on the most conservative measured triggering distance of 11mm, additional Body SAR measurements were required at 10mm from Right side for the above modes.

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2.2 Proximity Sensor Coverage for SAR measurements

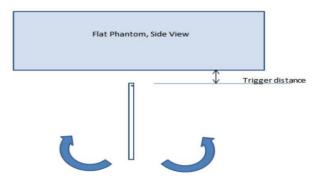
(KDB 616217 D04v01r02 § 6.3)

As there is no spatial offset between the antenna and the proximity sensor element, proximity sensor coverage did not need to be assessed.

2.3 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02 § 6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to $\pm 45^\circ$. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up $\pm 45^\circ$.



Proximity sensor tilt angle assessment (Bottom/Right side) KDB 616217 § 6.4

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Bottom side)

| | Minimum | Power reduction status | | | | | | | | | | |
|-----------------------------|-----------------------------------------------------------|------------------------|------|------|------|------|----|-----|-----|-----|-----|-----|
| Tissue simulating liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10° | 20° | 30° | 40° | 45° |
| 3500 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Right side)

| | Minimum | | | | | Power | reduct | ion sta | tus | | | |
|-----------------------------|-----------------------------------------------------------|------|------|------|------|-------|--------|---------|-----|-----|-----|-----|
| Tissue simulating liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10° | 20° | 30° | 40° | 45° |
| 3500 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |

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2.4 Resulting test positions for Body SAR measurements

| Wireless technologies | Position | § 6.2 Triggering Distance [mm] | § 6.3 Coverage | § 6.4 Tilt Angle | Worst case distance for Body SAR [mm] |
|--------------------------|----------|--------------------------------------|-------------------|---------------------|------------------------------------------------|
| | Rear | 19 | N/A | N/A | 18 |
| Main 2 Ant | Bottom | 19 | N/A | N/A | 18 |
| | Right | 11 | N/A | N/A | 10 |

Note: FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in use conditions.

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3. Power Reduction Verification for Sub 1 Ant

| Mechanism | | Radio Sa | AR Index |
|---------------|-------------|----------|----------|
| Mechanism 1st | Mode/Band | RSI=0 | RSI=5 |
| | | Free | 1st |
| Grip #5 | LTE Band 2 | 0 | 5 |
| Grip #5 | LTE Band 4 | 0 | 5 |
| Grip #5 | LTE Band 7 | 0 | 5 |
| Grip #5 | LTE Band 25 | 0 | 5 |
| Grip #5 | LTE Band 30 | 0 | 5 |
| Grip #5 | LTE Band 66 | 0 | 5 |

Note: This device uses different Radio SAR Index(RSI) to configure different time averaged power level based on certain exposure scenarios. For this model, RSI=5 represents the case when the grip sensor #5 is active, and RSI=0 represents the case where the device cannot detect the use condition.

3.1 Proximity sensor triggering Distance Verification.



Proximity Sensor Trigger Distance Assessment KDB 616217 D04 § 6.2 (Rear / Bottom/ Left side) LEGEND



Direction of DUT travel for determination of power reduction triggering point Direction of DUT travel for determination of full power resumption triggering point

| | | distance ear | | distance ttom | | distance .eft |
|--------------------------|-------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|
| Tissue simulating liquid | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] |
| 1 750 MHz | 19 | 25 | 19 | 25 | 11 | 17 |
| 1 900 MHz | 19 | 25 | 19 | 25 | 11 | 17 |
| 2 300 MHz | 19 | 25 | 19 | 25 | 11 | 17 |
| 2 600 MHz | 19 | 25 | 19 | 25 | 11 | 17 |

Distance Measurement verification for Proximity sensor

Rear side – EUT Moving toward (trigger) to the Phantom

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| Distance[mm] | | | | Dista | nce to DU1 | Coutput pov | ver (dBm) | | | |
|--------------|-----|-----|-----|-------|------------|-------------|-----------|---------|---------|---------|
| Distance[mm] | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 |
| LTE Band 2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 4 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 7 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 25 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 30 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 66 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |

Rear side – EUT Moving away (Release) from the Phantom

| Distance [man] | Distance to DUT Output power (dBm) | | | | | | | | | | | | | |
|----------------|------------------------------------|---------|---------|---------|---------|-----|-----|-----|-----|-----|--|--|--|--|
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | |
| LTE Band 2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |
| LTE Band 4 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |
| LTE Band 7 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |
| LTE Band 25 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |
| LTE Band 30 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |
| LTE Band 66 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | | | |

Based on the most conservative measured triggering distance of 19mm, additional Body SAR measurements were required at 18mm from rear side for the above modes.

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Bottom side – EUT Moving toward (trigger) to the Phantom

| | | 8 | , 00 | 10.7 00 0 | | _ | | | | |
|----------------|-----|-----|------|-----------|------------|------------|-----------|---------|---------|---------|
| Distance[seed] | | | | Dista | nce to DU1 | Output pov | ver (dBm) | | | |
| Distance[mm] | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 |
| LTE Band 2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 4 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 7 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 25 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 30 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| LTE Band 66 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |

Bottom side – EUT Moving away (Release) from the Phantom

| | | Torning array (Notestado), nomento mante array (Notestado), nomento mante array (Notestado), nomento a | | | | | | | | | | |
|--------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|-----|-----|-----|-----|-----|--|--|
| Distance[mm] | Distance to DUT Output power (dBm) | | | | | | | | | | | |
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | |
| LTE Band 2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 4 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 7 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 25 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 30 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 66 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |

Based on the most conservative measured triggering distance of 19mm, additional Body SAR measurements were required at 18mm from bottom side for the above modes.

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Left side – EUT Moving toward (trigger) to the Phantom

| <u> </u> | | oving toward (trigger) to the Financom | | | | | | | | | |
|---------------|-----|----------------------------------------|-----|-------|------------|------------|-----------|---------|---------|---------|--|
| Distance[man] | | | | Dista | nce to DU1 | Output pov | ver (dBm) | | | | |
| Distance[mm] | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | |
| LTE Band 2 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | |
| LTE Band 4 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | |
| LTE Band 7 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | |
| LTE Band 25 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | |
| LTE Band 30 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | |
| LTE Band 66 | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | |

Left side – EUT Moving away (Release) from the Phantom

| | | mg array (notedocy ment array manager) | | | | | | | | | | |
|--------------|------------------------------------|----------------------------------------|---------|---------|---------|-----|-----|-----|-----|-----|--|--|
| Distance[mm] | Distance to DUT Output power (dBm) | | | | | | | | | | | |
| Distance[mm] | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | | |
| LTE Band 2 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 4 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 7 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 25 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 30 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |
| LTE Band 66 | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max | | |

Based on the most conservative measured triggering distance of 11mm, additional Body SAR measurements were required at 10mm from Left/Right side for the above modes.

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3.2 Proximity Sensor Coverage for SAR measurements

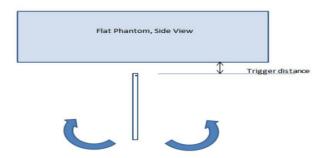
(KDB 616217 D04v01r02 § 6.3)

As there is no spatial offset between the antenna and the proximity sensor element, proximity sensor coverage did not need to be assessed.

3.3 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02 § 6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to $\pm 45^\circ$. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up $\pm 45^\circ$.



Proximity sensor tilt angle assessment (Bottom /Left side) KDB 616217 § 6.4

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Bottom side)

| | Minimum | | | | | Power | reduct | ion sta | tus | | | |
|-----------------------------|-----------------------------------------------------------|------|------|------|------|-------|--------|-------------|-----|-----|-----|-----|
| Tissue simulating liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10 ° | 20° | 30° | 40° | 45° |
| 1 750 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |
| 1 900 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 300 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 600 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |

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Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Left side)

| <u>eanimary or rast</u> | et iitti iigte iii | | | ر ۲۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰ | 0000 | | -1.0 | | <u>/</u> | | | |
|-----------------------------|-----------------------------------------------------------|------|------|-----------------------------------------|------|-------|--------|---------|----------|-----|-----|-----|
| | Minimum | | | | | Power | reduct | ion sta | tus | | | |
| Tissue simulating liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10° | 20° | 30° | 40° | 45° |
| 1 750 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 1 900 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 300 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |
| 2 600 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On |

3.4 Resulting test positions for Body SAR measurements

| Wireless technologies | Position | § 6.2 Triggering Distance [mm] | § 6.3 Coverage | § 6.4 Tilt Angle | Worst case distance for Body SAR [mm] |
|-----------------------|----------|--------------------------------------|-------------------|---------------------|------------------------------------------------|
| | Rear | 19 | N/A | N/A | 18 |
| Sub 1 Ant | Bottom | 19 | N/A | N/A | 18 |
| | Left | 11 | N/A | N/A | 10 |

Note: FCC KDB Publication $616217 \, D04v01r02 \, Section \, 6$ was used as a guideline for selecting SAR test distances for this device when being used in use conditions.

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4. Power Reduction Verification for WIFI 1 Ant

| Mechanism | | Mach | anism |
|---------------|-----------------------|-------------|---------------|
| Mechanism 1st | Mode/Band | Untriggered | 1st Triggered |
| Grip#3 | 2.4 GHz 802.11b | Max | Reduced |
| Grip#3 | 2.4 GHz 802.11g | Max | Reduced |
| Grip#3 | 2.4 GHz 802.11n | Max | Reduced |
| Grip#3 | 2.4 GHz 802.11ax | Max | Reduced |
| Grip#3 | 2.4 GHz Bluetooth | Max | Reduced |
| Grip#3 | 2.4 Gtz Bluetooth LE | Max | Reduced |
| Grip#3 | 5 GHz 802.11a | Max | Reduced |
| Grip#3 | 5 GHz 802.11n 20 MHz | Max | Reduced |
| Grip#3 | 5 GHz 802.11ac 20 MHz | Max | Reduced |
| Grip#3 | 5 GHz 802.11ax 20 MHz | Max | Reduced |
| Grip#3 | 5 GHz 802.11n 40 MHz | Max | Reduced |
| Grip#3 | 5 GHz 802.11ac 40 MHz | Max | Reduced |
| Grip#3 | 5 GHz 802.11ax 40 MHz | Max | Reduced |
| Grip#3 | 5 GHz 802.11ac 80 MHz | Max | Reduced |
| Grip#3 | 5 GHz 802.11ax 80 MHz | Max | Reduced |

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4.1 Proximity sensor triggering Distance Verification.



Proximity Sensor Trigger Distance Assessment KDB 616217 D04 § 6.2 (Rear / Top / Right side) LEGEND



Direction of DUT travel for determination of power reduction triggering point Direction of DUT travel for determination of full power resumption triggering point

| | | distance ear | | distance op | | distance ight |
|--------------------------|-------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|
| Tissue simulating liquid | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] |
| 2 450 MHz | 19 | 25 | 19 | 25 | 11 | 17 |
| 5 000 MHz | 19 | 25 | 19 | 25 | 11 | 17 |

Distance Measurement verification for Proximity sensor

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Rear side – EUT Moving toward (trigger) to the Phantom

| near side 201 | | | 33 | | | UT Output p | ower (dBm) |) | | |
|-----------------------|-----|-----|-----|-----|-----|-------------|------------|---------|---------|---------|
| Distance | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 |
| 2.4 GHz 802.11b | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11g | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11n | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11ax | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz Bluetooth | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz Bluetooth LE | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11a | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11n 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11n 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |

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Rear side – EUT Moving away (Release) from the Phantom

| Real Side - LOT | | | | | | | | | | |
|-----------------------|---------|---------|---------|-------------|------------|----------|-------|-----|-----|-----|
| Distance[mm] | | | | Distance to | o DUT Outp | ut power | (dBm) | | | |
| Distance[iiiii] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 2.4 GHz 802.11b | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11g | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11n | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11ax | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 Hz Bluetooth | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 Hz Bluetooth LE | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11a | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |

Based on the most conservative measured triggering distance of 19mm, additional Body SAR measurements were required at 18mm from rear side for the above modes.

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Top side – EUT Moving toward (trigger) to the Phantom

| <u>100 3146 201</u> | <u> </u> | , | 00 <i>1</i> | | | Γ Output po | wer (dBm) | | | |
|-----------------------|----------|-----|-------------|-----|-----|-------------|-----------|---------|---------|---------|
| Distance | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 |
| 2.4 GHz 802.11b | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11g | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11n | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11ax | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz Bluetooth | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz Bluetooth LE | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11a | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11n 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11n 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |

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Top side – EUT Moving away (Release) from the Phantom

| <u>10p side - 201</u> | | | | | DUT Outp | ut power | (dBm) | | | |
|-----------------------|---------|---------|---------|---------|----------|----------|-------|-----|-----|-----|
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 2.4 GHz 802.11b | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11g | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11n | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11ax | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz Bluetooth | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 Gtz Bluetooth LE | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11a | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |

Based on the most conservative measured triggering distance of 19mm, additional Body SAR measurements were required at 18mm from bottom side for the above modes.

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Right side – EUT Moving toward (trigger) to the Phantom

| Right side Lot | | | <u> </u> | | | UT Output p | ower (dBm) | | | |
|-----------------------|-----|-----|----------|-----|-----|-------------|------------|---------|---------|---------|
| Distance | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 |
| 2.4 GHz 802.11b | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11g | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11n | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz 802.11ax | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz Bluetooth | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 2.4 GHz Bluetooth LE | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11a | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11n 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11n 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ac 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |
| 5 GHz 802.11ax 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced |

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Right side – EUT Moving away (Release) from the Phantom

| right side – Lo | | - J (| | | DUT Outp | ut power | (dBm) | | | |
|-----------------------|---------|---------|---------|---------|----------|----------|-------|-----|-----|-----|
| Distance[mm] | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 2.4 GHz 802.11b | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11g | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11n | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11ax | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz Bluetooth | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 Gtz Bluetooth LE | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11a | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |

Based on the most conservative measured triggering distance of 11mm, additional Body SAR measurements were required at 10mm from Right side for the above modes.

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4.2 Proximity Sensor Coverage for SAR measurements

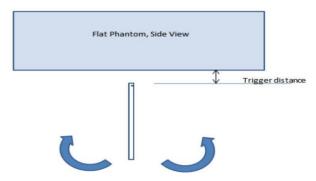
(KDB 616217 D04v01r02 § 6.3)

As there is no spatial offset between the antenna and the proximity sensor element, proximity sensor coverage did not need to be assessed.

4.3 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02 § 6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to $\pm 45^\circ$. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up $\pm 45^\circ$.



Proximity sensor tilt angle assessment (Top/Right side) KDB 616217 § 6.4

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Top side)

| | Minimum | | | | | Power | reduct | ion sta | tus | | | |
|-----------------------------|-----------------------------------------------------------|------|------|------|------|-------|--------|---------|-------------|-----|-----|-----|
| Tissue simulating liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10° | 20 ° | 30° | 40° | 45° |
| 2 450 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |
| 5 000 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Right side)

| | Minimum | Power reduction status | | | | | | | | | | | | |
|-----------------------------|-----------------------------------------------------------|------------------------|------|------|------|------|----|-----|-----|-----|-----|-------------|--|--|
| Tissue simulating liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10° | 20° | 30° | 40° | 4 5° | | |
| 2 450 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On | | |
| 5 000 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On | | |

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4.4 Resulting test positions for Body SAR measurements

| Wireless technologies | Position | § 6.2 Triggering Distance [mm] | § 6.3 Coverage | § 6.4 Tilt Angle | Worst case distance for Body SAR [mm] |
|--------------------------|----------|--------------------------------------|-------------------|---------------------|------------------------------------------------|
| | Rear | 19 | N/A | N/A | 18 |
| WIFI 1 Ant | Тор | 19 | N/A | N/A | 18 |
| | Right | 11 | N/A | N/A | 10 |

Note: FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in use conditions.

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5. Power Reduction Verification for WIFI 2 Ant

| Mechanism | | Mech | nanism |
|---------------|-----------------------|-------------|---------------|
| Mechanism 1st | Mode/Band | Untriggered | 1st Triggered |
| Grip #1 | 2.4 GHz 802.11b | Max | Reduced |
| Grip #1 | 2.4 GHz 802.11g | Max | Reduced |
| Grip #1 | 2.4 GHz 802.11n | Max | Reduced |
| Grip #1 | 2.4 GHz 802.11ax | Max | Reduced |
| Grip #1 | 5 GHz 802.11a | Max | Reduced |
| Grip #1 | 5 GHz 802.11n 20 MHz | Max | Reduced |
| Grip #1 | 5 GHz 802.11ac 20 MHz | Max | Reduced |
| Grip #1 | 5 GHz 802.11ax 20 MHz | Max | Reduced |
| Grip #1 | 5 GHz 802.11n 40 MHz | Max | Reduced |
| Grip #1 | 5 GHz 802.11ac 40 MHz | Max | Reduced |
| Grip #1 | 5 GHz 802.11ax 40 MHz | Max | Reduced |
| Grip #1 | 5 GHz 802.11ac 80 MHz | Max | Reduced |
| Grip #1 | 5 GHz 802.11ax 80 MHz | Max | Reduced |

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5.1 Proximity sensor triggering Distance Verification.



Proximity Sensor Trigger Distance Assessment KDB 616217 D04 § 6.2 (Rear / Top / Left side) LEGEND



Direction of DUT travel for determination of power reduction triggering point Direction of DUT travel for determination of full power resumption triggering point

| | | distance ear | | distance op | Trigger distance -Left | | |
|--------------------------|-------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|--|
| Tissue simulating liquid | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] | Moving toward phantom [mm] | Moving away from phantom [mm] | |
| 2 450 MHz | 19 | 25 | 19 | 25 | 11 | 17 | |
| 5 000 MHz | 19 | 25 | 19 | 25 | 11 | 17 | |

Distance Measurement verification for Proximity sensor

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Rear side – EUT Moving toward (trigger) to the Phantom

| itear side 201 | | Distance to DUT Output power (dBm) | | | | | | | | | | | |
|-----------------------|-----|------------------------------------|-----|-----|-----|---------|---------|---------|---------|---------|--|--|--|
| Distance | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | | | |
| 2.4 GHz 802.11b | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11g | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11n | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11ax | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11a | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11n 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11n 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |

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Rear side – EUT Moving away (Release) from the Phantom

| Distance | | | | Distance to | o DUT Outp | ut power | (dBm) | | | |
|-----------------------|---------|---------|---------|-------------|------------|----------|-------|-----|-----|-----|
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 2.4 GHz 802.11b | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11g | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11n | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11ax | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11a | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |

Based on the most conservative measured triggering distance of 19mm, additional Body SAR measurements were required at 18mm from rear side for the above modes.

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<u>Top side – EUT Moving toward (trigger) to the Phantom</u>

| Distance | Distance to DUT Output power (dBm) | | | | | | | | | | | | |
|-----------------------|------------------------------------|-----|-----|-----|-----|---------|---------|---------|---------|---------|--|--|--|
| Distance | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | | | |
| 2.4 GHz 802.11b | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11g | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11n | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11ax | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11a | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11n 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11n 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |

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Top side – EUT Moving away (Release) from the Phantom

| Distance formal | | | | Distance to | DUT Outp | ut power | (dBm) | | | |
|-----------------------|---------|---------|---------|-------------|----------|----------|-------|-----|-----|-----|
| Distance[mm] | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 2.4 GHz 802.11b | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11g | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11n | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11ax | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11a | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |

Based on the most conservative measured triggering distance of 19mm, additional Body SAR measurements were required at 18mm from bottom side for the above modes.

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<u>Left side – EUT Moving toward (trigger) to the Phantom</u>

| Distance | Distance to DUT Output power (dBm) | | | | | | | | | | | | |
|-----------------------|------------------------------------|-----|-----|-----|-----|---------|---------|---------|---------|---------|--|--|--|
| Distance | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | | | |
| 2.4 GHz 802.11b | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11g | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11n | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 2.4 GHz 802.11ax | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11a | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11n 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 20 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11n 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 40 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ac 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |
| 5 GHz 802.11ax 80 MHz | Max | Max | Max | Max | Max | Reduced | Reduced | Reduced | Reduced | Reduced | | | |

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<u>Left side – EUT Moving away (Release) from the Phantom</u>

| Distance formal | | | | Distance to | o DUT Outp | ut power | (dBm) | | | |
|-----------------------|---------|---------|---------|-------------|------------|----------|-------|-----|-----|-----|
| Distance[mm] | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 2.4 GHz 802.11b | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11g | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11n | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 2.4 GHz 802.11ax | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11a | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 20 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11n 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 40 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ac 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |
| 5 GHz 802.11ax 80 MHz | Reduced | Reduced | Reduced | Reduced | Reduced | Max | Max | Max | Max | Max |

Based on the most conservative measured triggering distance of 11mm, additional Body SAR measurements were required at 10mm from Left side for the above modes.

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5.2 Proximity Sensor Coverage for SAR measurements

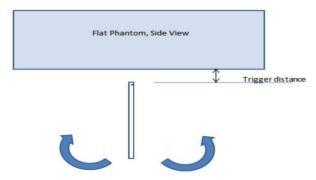
(KDB 616217 D04v01r02 § 6.3)

As there is no spatial offset between the antenna and the proximity sensor element, proximity sensor coverage did not need to be assessed.

5.3 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02 § 6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to $\pm 45^\circ$. If the output power increased during the rotation the DUT was moved 1mm toward the phantom and the rotation repeated. This procedure was repeated until the power remained reduced for all angles up $\pm 45^\circ$.



Proximity sensor tilt angle assessment (Top/Left side) KDB 616217 § 6.4

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Top side)

| | Minimum | | | | | Power | reduct | ion sta | tus | | | |
|-----------------------------|-----------------------------------------------------------|------|------|------|------|-------|--------|---------|-------------|-----|-------------|-------------|
| Tissue simulating liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10° | 20 ° | 30° | 40 ° | 45 ° |
| 2 450 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |
| 5 000 MHz | 19 mm | On | On | On | On | On | On | On | On | On | On | On |

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Left side)

| | Minimum | Power reduction status | | | | | | | | | | | |
|-----------------------------|-----------------------------------------------------------|------------------------|------|------|------|------|----|-----|-------------|-----|-------------|-------------|--|
| Tissue simulating liquid | distance at which power reduction was maintained over-45° | -45° | -40° | -30° | -20° | -10° | 0° | 10° | 20 ° | 30° | 40 ° | 45 ° | |
| 2 450 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On | |
| 5 000 MHz | 11 mm | On | On | On | On | On | On | On | On | On | On | On | |

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5.4 Resulting test positions for Body SAR measurements

| Wireless technologies | Position | § 6.2 Triggering Distance [mm] | § 6.3 Coverage | § 6.4 Tilt Angle | Worst case distance for Body SAR [mm] |
|--------------------------|----------|--------------------------------------|-------------------|---------------------|------------------------------------------------|
| | Rear | 19 | N/A | N/A | 18 |
| WIFI 2 Ant | Тор | 19 | N/A | N/A | 18 |
| | Left | 11 | N/A | N/A | 10 |

Note: FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in use conditions.

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