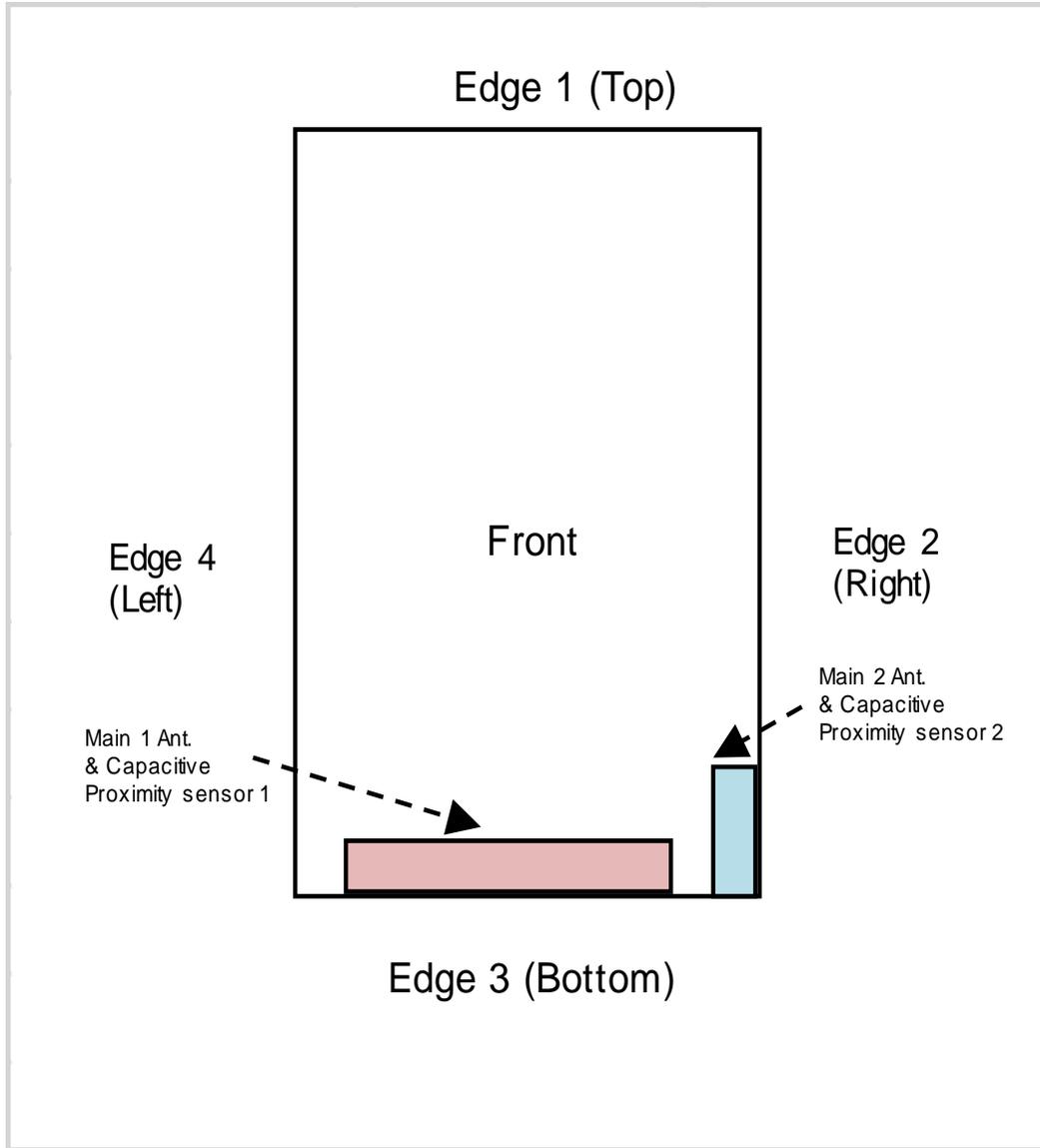


Appendix G. Proximity sensor feature

The DUT has two proximity sensors to reduce the output power. The position of the sensors and antenna are as shown in the graphic.

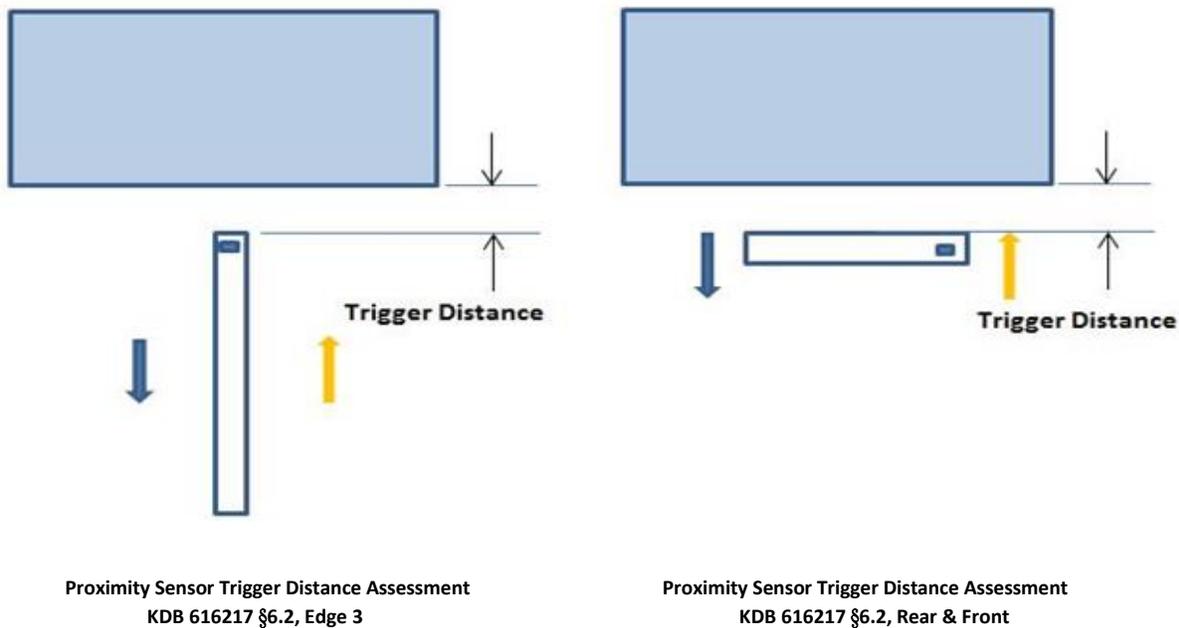


G.1 Proximity Sensor Triggering Distance (KDB 616217 §6.2)

Rear, Front, Edge3 of the DUT was placed directly below the flat phantom. The DUT was moved toward the phantom in accordance with the steps outlined in KDB 616217 §6.2 to determine the trigger distance for enabling power reduction. The DUT was moved away from the phantom to determine the trigger distance for resuming full power.

The DUT featured a visual indicator on its display that showed the status of the proximity sensor (Triggered or not triggered). This was used to determine the status of the sensor during the proximity sensor assessment as monitoring the output power directly was not practical without affecting the measurement.

It was confirmed separately that the output power was altered according to the proximity sensor status indication. This was achieved by observing the proximity sensor status at the same time as monitoring the conducted power. Section 9 contains both the full and reduced conducted power measurements.



LEGEND

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

Summary of Trigger Distances

Antenna	Trigger distance - Rear		Trigger distance - Front		Trigger distance - Front	
	Moving toward phantom	Moving from phantom	Moving toward phantom	Moving from phantom	Moving toward phantom	Moving from phantom
Main 1 Ant.	7 mm	7 mm	7 mm	7 mm	13 mm	13 mm
Main 2 Ant.	7 mm	7 mm	7 mm	7 mm	13 mm	13 mm

Proximity Sensor Triggering Distance Measurement Results

Main 1 Ant.

Rear, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm										
Distance (mm)	3	4	5	6	7	8	9	10	11	12
GSM 1900	27.8	28.0	28.1	28.1	28.1	30.9	30.9	31.1	31.0	31.1
WCDMA Band II	19.7	19.5	19.6	19.5	19.4	22.9	23.0	23.0	23.1	23.1
WCDMA Band IV	19.6	19.4	19.3	19.5	19.3	23.2	22.8	23.0	22.9	22.9
LTE Band 2	20.1	20.0	19.8	19.8	20.0	23.6	23.5	23.5	23.5	23.4
LTE Band 4	20.2	20.1	19.8	20.1	19.9	23.7	23.6	23.6	23.4	23.7
LTE Band 25	20.0	20.0	20.2	20.1	20.2	23.5	23.6	23.6	23.5	23.6
LTE Band 66	20.1	19.8	20.1	20.0	19.8	23.5	23.5	23.7	23.4	23.5
NR Band n66-SA	20.4	20.2	20.2	20.3	20.3	23.7	23.5	23.6	23.7	23.6
NR Band n66-NSA	20.2	20.2	20.0	20.3	20.2	23.7	23.9	23.7	23.7	23.9

Front, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm										
Distance (mm)	3	4	5	6	7	8	9	10	11	12
GSM 1900	28.0	28.0	27.9	27.9	28.2	30.9	30.8	31.2	31.1	31.1
WCDMA Band II	19.6	19.4	19.5	19.5	19.7	23.0	22.9	23.0	23.1	22.9
WCDMA Band IV	19.4	19.5	19.5	19.4	19.6	23.1	23.1	23.1	23.1	23.1
LTE Band 2	19.7	19.7	19.7	19.7	19.7	23.6	23.5	23.5	23.5	23.6
LTE Band 4	20.0	19.9	20.1	20.1	19.9	23.6	23.3	23.5	23.6	23.6
LTE Band 25	20.0	20.1	20.1	20.1	20.1	23.4	23.5	23.5	23.4	23.5
LTE Band 66	20.0	19.8	20.1	20.0	20.0	23.5	23.6	23.5	23.6	23.5
NR Band n66-SA	20.2	20.2	20.3	20.2	20.1	23.7	23.8	23.5	23.5	23.9
NR Band n66-NSA	20.1	20.3	20.2	20.1	20.4	23.8	23.6	23.6	23.7	23.7

Edge3, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm										
Distance (mm)	9	10	11	12	13	14	15	16	17	18
GSM 1900	27.9	28.2	28.0	28.1	27.9	31.0	31.1	31.0	31.1	31.2
WCDMA Band II	19.7	19.5	19.6	19.3	19.5	22.9	23.0	23.1	23.0	23.1
WCDMA Band IV	19.6	19.5	19.6	19.7	19.4	23.1	23.1	23.0	23.1	23.0
LTE Band 2	20.1	19.9	20.0	19.9	19.9	23.5	23.5	23.6	23.6	23.4
LTE Band 4	20.1	20.1	20.0	20.2	20.0	23.5	23.5	23.5	23.4	23.4
LTE Band 25	19.9	19.9	19.8	20.1	19.8	23.6	23.5	23.6	23.7	23.4
LTE Band 66	20.0	19.9	20.1	20.2	19.9	23.5	23.7	23.6	23.3	23.4
NR Band n66-SA	20.2	20.2	20.3	20.4	20.3	23.7	23.8	23.7	23.7	23.8
NR Band n66-NSA	20.2	20.3	20.1	20.2	20.2	23.8	23.7	23.7	23.7	23.7

Main 2 Ant.

Rear, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm										
Distance (mm)	3	4	5	6	7	8	9	10	11	12
LTE Band 41	23.2	22.8	23.2	23.0	23.1	24.2	24.0	23.9	23.9	24.0
LTE Band 41 (HPUE)	22.9	23.0	23.1	23.2	23.0	25.0	24.9	24.9	24.8	24.9

Front, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm										
Distance (mm)	3	4	5	6	7	8	9	10	11	12
LTE Band 41	23.1	23.1	23.1	23.2	23.0	24.0	23.8	24.2	23.8	23.9
LTE Band 41 (HPUE)	23.0	23.0	22.8	22.9	23.0	25.2	24.9	25.1	25.0	24.8

Edge3, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm										
Distance (mm)	9	10	11	12	13	14	15	16	17	18
LTE Band 41	23.1	23.1	23.1	23.0	23.0	23.9	24.1	24.1	23.9	24.1
LTE Band 41 (HPUE)	23.2	22.8	22.9	23.0	22.9	25.1	25.1	25.0	25.0	24.9

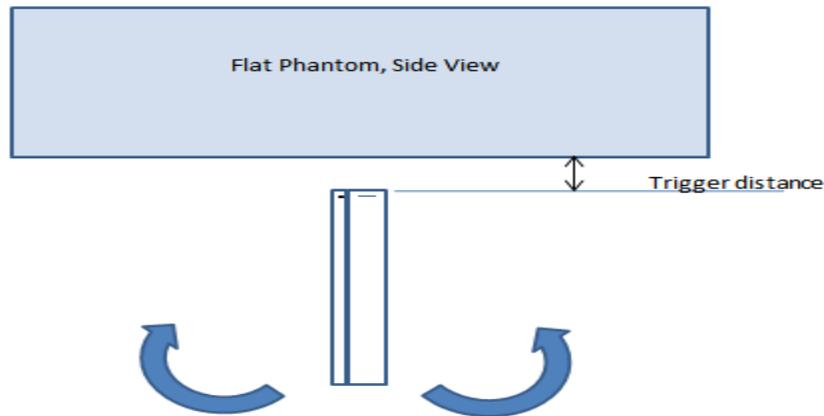
G.2 Proximity Sensor Coverage (KDB 616217 §6.3)

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

G.3 Proximity Sensor Tilt Angle Assessment (KDB 616217 §6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Edge 3 parallel to the base of the flat phantom for each band.

The EUT was rotated about Edge 3 for angles up to +/- 45°. 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 to +/- 45°.



Proximity sensor tilt angle assessment (Edge 3) KDB 616217 §6.4

Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering (Edge 3)

Antenna	Minimum trigger distance measured according to KDB 616217 §6.2	Minimum distance at which power reduction was maintained over +/-45°	Power reduction status											
			-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°	
Main 1 Ant	13 mm	13 mm	On	On	On	On	On	On	On	On	On	On	On	On
Main 2 Ant	13 mm	13 mm	On	On	On	On	On	On	On	On	On	On	On	On

G.4 Resulting test positions for SAR measurements

Wireless technologies	Position	§6.2 Triggering Distance	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for SAR
Main 1 Ant. & Main 2 Ant.	Rear	7 mm	N/A	7 mm	6 mm
	Front	7 mm	N/A	7 mm	6 mm
	Edge 3	13 mm	N/A	13 mm	12 mm

-End-