

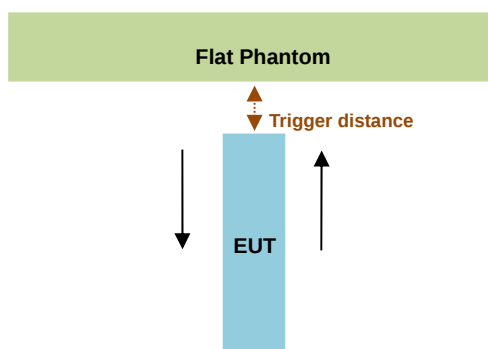
Appendix F. Proximity Sensor Triggering Test

The test results in this appendix were provided by the manufacturer

<Proximity Sensor Triggering Distance (KDB 616217 D04 section 6.2)>:

Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed. The details are illustrated in the exhibit "P-Sensor operational description", and the shortest triggering distances were reported and used for SAR assessment.

In the preliminary triggering distance testing, the tissue-equivalent medium for different frequency bands were used for verification; no other frequency bands tissue-equivalent medium was found to result in shortest triggering distance than that for 1900MHz, and the tissue-equivalent medium for 1900MHz was used for formal proximity sensor triggering testing.



Proximity Sensor Trigger Distance (mm)		
Position	Bottom Face	Edge 3
Minimum	16 mm	6 mm

KDB 616217 6.2.6											
Measured Power [dBm]											
Distance[mm]	21	20	19	18	17	16	15	14	13	12	11
GSM850	34.5	34.5	34.5	34.5	34.5	20.2	20.2	20.2	20.2	20.2	20.2
GSM1900	31.3	31.3	31.3	31.3	31.3	19.5	19.5	19.5	19.5	19.5	19.5
GPRS850 1Tx	34.5	34.5	34.5	34.5	34.5	20.2	20.2	20.2	20.2	20.2	20.2
GPRS850 2Tx	30.0	30.0	30.0	30.0	30.0	20.4	20.4	20.4	20.4	20.4	20.4
GPRS850 3Tx	28.9	28.9	28.9	28.9	28.9	20.5	20.5	20.5	20.5	20.5	20.5
GPRS850 4Tx	27.2	27.2	27.2	27.2	27.2	20.6	20.6	20.6	20.6	20.6	20.6
GPRS1900 1Tx	31.2	31.2	31.2	31.2	31.2	19.5	19.5	19.5	19.5	19.5	19.5
GPRS1900 2Tx	29.6	29.6	29.6	29.6	29.6	19.6	19.6	19.6	19.6	19.6	19.6
GPRS1900 3Tx	27.3	27.3	27.3	27.3	27.3	19.8	19.8	19.8	19.8	19.8	19.8
GPRS1900 4Tx	26.1	26.1	26.1	26.1	26.1	19.9	19.9	19.9	19.9	19.9	19.9
WCDMA850	23.0	23.0	23.0	23.0	23.0	20	20	20	20	20	20
WCDMA1900	22.7	22.7	22.7	22.7	22.7	14.2	14.2	14.2	14.2	14.2	14.2
EDGE850 1Tx	27	27	27	27	27	19.3	19.3	19.3	19.3	19.3	19.3
EDGE850 2Tx	26	26	26	26	26	19.5	19.5	19.5	19.5	19.5	19.5
EDGE850 3Tx	25.1	25.1	25.1	25.1	25.1	19.6	19.6	19.6	19.6	19.6	19.6
EDGE850 4Tx	24.2	24.2	24.2	24.2	24.2	19.7	19.7	19.7	19.7	19.7	19.7
EDGE1900 1Tx	27.3	27.3	27.3	27.3	27.3	18.4	18.4	18.4	18.4	18.4	18.4
EDGE1900 2Tx	26.3	26.3	26.3	26.3	26.3	18.7	18.7	18.7	18.7	18.7	18.7
EDGE1900 3Tx	25.2	25.2	25.2	25.2	25.2	18.8	18.8	18.8	18.8	18.8	18.8
EDGE1900 4Tx	24.2	24.2	24.2	24.2	24.2	18.9	18.9	18.9	18.9	18.9	18.9
LTE B41	22.8	22.8	22.8	22.8	22.8	14.8	14.8	14.8	14.8	14.8	14.8

Reduced Power

KDB 616217 6.2.8																	
Measured Power [dBm]																	
Distance[mm]	27	24	21	20	19	18	17	16	15	14	13	12	11	8	5	2	0
GSM850	34.5	34.5	34.5	34.5	34.5	34.5	34.5	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
GSM1900	31.3	31.3	31.3	31.3	31.3	31.3	31.3	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
GPRS850 1Tx	34.5	34.5	34.5	34.5	34.5	34.5	34.5	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
GPRS850 2Tx	30.0	30.0	30.0	30.0	30.0	30.0	30.0	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
GPRS850 3Tx	28.9	28.9	28.9	28.9	28.9	28.9	28.9	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
GPRS850 4Tx	27.2	27.2	27.2	27.2	27.2	27.2	27.2	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
GPRS1900 1Tx	31.2	31.2	31.2	31.2	31.2	31.2	31.2	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
GPRS1900 2Tx	29.6	29.6	29.6	29.6	29.6	29.6	29.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
GPRS1900 3Tx	27.3	27.3	27.3	27.3	27.3	27.3	27.3	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
GPRS1900 4Tx	26.1	26.1	26.1	26.1	26.1	26.1	26.1	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
WCDMA850	23.0	23.0	23.0	23.0	23.0	23.0	23.0	20	20	20	20	20	20	20	20	20	20
WCDMA1900	22.7	22.7	22.7	22.7	22.7	22.7	22.7	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
EDGE850 1Tx	27	27	27	27	27	27	27	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
EDGE850 2Tx	26	26	26	26	26	26	26	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
EDGE850 3Tx	25.1	25.1	25.1	25.1	25.1	25.1	25.1	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
EDGE850 4Tx	24.2	24.2	24.2	24.2	24.2	24.2	24.2	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
EDGE1900 1Tx	27.3	27.3	27.3	27.3	27.3	27.3	27.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
EDGE1900 2Tx	26.3	26.3	26.3	26.3	26.3	26.3	26.3	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
EDGE1900 3Tx	25.2	25.2	25.2	25.2	25.2	25.2	25.2	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
EDGE1900 4Tx	24.2	24.2	24.2	24.2	24.2	24.2	24.2	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
LTE B 41	22.8	22.8	22.8	22.8	22.8	22.8	22.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8

Full Power

KDB 616217 6.2.6											
Measured Power [dBm]											
Distance[mm]	11	10	9	8	7	6	5	4	3	2	1
GSM850	34.5	34.5	34.5	34.5	34.5	20.2	20.2	20.2	20.2	20.2	20.2
GSM1900	31.3	31.3	31.3	31.3	31.3	19.5	19.5	19.5	19.5	19.5	19.5
GPRS850 1Tx	34.5	34.5	34.5	34.5	34.5	20.2	20.2	20.2	20.2	20.2	20.2
GPRS850 2Tx	30.0	30.0	30.0	30.0	30.0	20.4	20.4	20.4	20.4	20.4	20.4
GPRS850 3Tx	28.9	28.9	28.9	28.9	28.9	20.5	20.5	20.5	20.5	20.5	20.5
GPRS850 4Tx	27.2	27.2	27.2	27.2	27.2	20.6	20.6	20.6	20.6	20.6	20.6
GPRS1900 1Tx	31.2	31.2	31.2	31.2	31.2	19.5	19.5	19.5	19.5	19.5	19.5
GPRS1900 2Tx	29.6	29.6	29.6	29.6	29.6	19.6	19.6	19.6	19.6	19.6	19.6
GPRS1900 3Tx	27.3	27.3	27.3	27.3	27.3	19.8	19.8	19.8	19.8	19.8	19.8
GPRS1900 4Tx	26.1	26.1	26.1	26.1	26.1	19.9	19.9	19.9	19.9	19.9	19.9
WCDMA850	23.0	23.0	23.0	23.0	23.0	20	20	20	20	20	20
WCDMA1900	22.7	22.7	22.7	22.7	22.7	14.2	14.2	14.2	14.2	14.2	14.2
EDGE850 1Tx	27	27	27	27	27	19.3	19.3	19.3	19.3	19.3	19.3
EDGE850 2Tx	26	26	26	26	26	19.5	19.5	19.5	19.5	19.5	19.5
EDGE850 3Tx	25.1	25.1	25.1	25.1	25.1	19.6	19.6	19.6	19.6	19.6	19.6
EDGE850 4Tx	24.2	24.2	24.2	24.2	24.2	19.7	19.7	19.7	19.7	19.7	19.7
EDGE1900 1Tx	27.3	27.3	27.3	27.3	27.3	18.4	18.4	18.4	18.4	18.4	18.4
EDGE1900 2Tx	26.3	26.3	26.3	26.3	26.3	18.7	18.7	18.7	18.7	18.7	18.7
EDGE1900 3Tx	25.2	25.2	25.2	25.2	25.2	18.8	18.8	18.8	18.8	18.8	18.8
EDGE1900 4Tx	24.2	24.2	24.2	24.2	24.2	18.9	18.9	18.9	18.9	18.9	18.9
LTE B 41	22.8	22.8	22.8	22.8	22.8	14.8	14.8	14.8	14.8	14.8	14.8

Reduced Power

KDB 616217 6.2.8														
Measured Power [dBm]														
Distance[mm]	17	14	11	10	9	8	7	6	5	4	3	2	1	0
GSM850	34.5	34.5	34.5	34.5	34.5	34.5	34.5	20.2	20.2	20.2	20.2	20.2	20.2	20.2
GSM1900	31.3	31.3	31.3	31.3	31.3	31.3	31.3	19.5	19.5	19.5	19.5	19.5	19.5	19.5
GPRS850 1Tx	34.5	34.5	34.5	34.5	34.5	34.5	34.5	20.2	20.2	20.2	20.2	20.2	20.2	20.2
GPRS850 2Tx	30.0	30.0	30.0	30.0	30.0	30.0	30.0	20.4	20.4	20.4	20.4	20.4	20.4	20.4
GPRS850 3Tx	28.9	28.9	28.9	28.9	28.9	28.9	28.9	20.5	20.5	20.5	20.5	20.4	20.5	20.5
GPRS850 4Tx	27.2	27.2	27.2	27.2	27.2	27.2	27.2	20.6	20.6	20.6	20.6	20.6	20.6	20.6
GPRS1900 1Tx	31.2	31.2	31.2	31.2	31.2	31.2	31.2	19.5	19.5	19.5	19.5	19.5	19.5	19.5
GPRS1900 2Tx	29.6	29.6	29.6	29.6	29.6	29.6	29.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
GPRS1900 3Tx	27.3	27.3	27.3	27.3	27.3	27.3	27.3	19.8	19.8	19.8	19.8	19.8	19.8	19.8
GPRS1900 4Tx	26.1	26.1	26.1	26.1	26.1	26.1	26.1	19.9	19.9	19.9	19.9	19.9	19.9	19.9
WCDMA850	23.0	23.0	23.0	23.0	23.0	23.0	23.0	20	20	20	20	20	20	20
WCDMA1900	22.7	22.7	22.7	22.7	22.7	22.7	22.7	14.2	14.2	14.2	14.2	14.2	14.2	14.2
EDGE850 1Tx	27	27	27	27	27	27	27	19.3	19.3	19.3	19.3	19.3	19.3	19.3
EDGE850 2Tx	26	26	26	26	26	26	26	19.5	19.5	19.5	19.5	19.5	19.5	19.5
EDGE850 3Tx	25.1	25.1	25.1	25.1	25.1	25.1	25.1	19.6	19.6	19.6	19.6	19.6	19.6	19.6
EDGE850 4Tx	24.2	24.2	24.2	24.2	24.2	24.2	24.2	19.7	19.7	19.7	19.7	19.7	19.7	19.7
EDGE1900 1Tx	27.3	27.3	27.3	27.3	27.3	27.3	27.3	18.4	18.4	18.3	18.4	18.4	18.4	18.4
EDGE1900 2Tx	26.3	26.3	26.3	26.3	26.3	26.3	26.3	18.7	18.7	18.7	18.7	18.7	18.7	18.7
EDGE1900 3Tx	25.2	25.2	25.2	25.2	25.2	25.2	25.2	18.8	18.8	18.8	18.8	18.8	18.8	18.8
EDGE1900 4Tx	24.2	24.2	24.2	24.2	24.2	24.2	24.2	18.9	18.9	18.9	18.9	18.9	18.9	18.9
LTE B 41	22.8	22.8	22.8	22.8	22.8	22.8	22.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8

Full Power



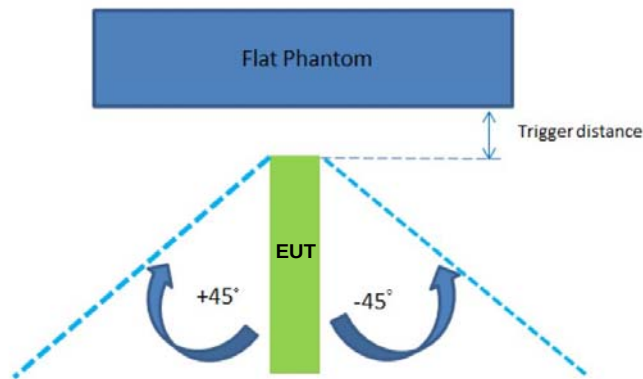
<Proximity Sensor Triggering Coverage (KDB 616217 D04 section 6.3)>:

If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing, the device is moved and “along the direction of maximum antenna and sensor offset”.

However, this device uses a capacitive proximity sensor that is same metallic component as the transmitting antenna to facilitate triggering in any conditions the user may use the device in proximity of the antenna in the device. Therefore, no further sensor coverage assessments were required according to KDB616217D04v016.3.

<Tablet Tilt angle influences to proximity sensor triggering (KDB 616217 D04 section 6.4)>:

The influence of table tilt angles to proximity sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, at 6 mm separation for Edge 3. Rotating the tablet around the edge next to the phantom in $\leq 10^\circ$ increments until the tablet is $\pm 45^\circ$ from the vertical position at 0° , and the maximum output power remains in the reduced mode.



The Sensor Trigger Distance (mm)	
Position	Edge 3
Minimum	6 mm

For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a separation of “the triggering distance – 1mm”:

- Edge 3: 6 mm