## Appendix F Proximity Sensor Verification

## The general

We confirmed the sensor trigger distance of FZ-G2

## Proximity Sensor Triggering distance from KDB 616217 Section 6.2

Edge4 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 Section 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 measurement was then repeated for the Rear surface.


Proximity Sensor Trigger Distance Assessment
Edge 4


LCD
Side

Proximity Sensor Trigger Distance Assessment
Rear

| Tissue simulatihg liquid | Trigge distance - Edge2 |  | Trigge distance - Edge4 |  | Trigger distance - Rear |  | Trigger distance <br> - Rear Tilt (Edge2 Side) |  | Trigger distance <br> - Rear Tilt (Edge4 Side) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Moving toward phantom | Moving from phantom | Moving toward phantom | Moving from phantom | Moving toward phantom | Moving from phantom | Moving toward phantom | Moving from phantom | Moving toward phantom | Moving from phantom |
| Head Tissue Simulating Liquid | 16 mm | 16 mm | 20 mm | 20 mm | 10 mm | 10 mm | 10 mm | 10 mm | 10 mm | 10 mm |

Unit : mm
【Test distance】

| Edge 2 | $:$ | $\underline{15 \mathrm{~mm}}$ |
| :--- | :--- | :--- |
| Edge 4 | $:$ | $\underline{19 \mathrm{~mm}}$ |
| Rear | $:$ | $\underline{9 \mathrm{~mm}}$ |
| Rear Tilt (Edge2 Side | $:$ | $\underline{9 \mathrm{~mm}}$ |
| Rear Tilt (Edge4 Side | $:$ | $\underline{9 \mathrm{~mm}}$ |

## Proximity Sensor Coverage from KDB 616217 Section 6.3

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

## Proximity Sensor Tilt Angle from KDB 616217 Section 6.4

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with edge 4 parallel to the base of the flat phantom. The DUT was rotated in both directions about edge 4.
The proximity sensor remained triggered with the DUT positioned at the minimum measured trigger distance from the phantom for all angles up to $45^{\circ}$


Verification Equipment list

| Model | Manufacturer |
| :--- | :--- |
| BLAPV1 - Block LAP Phantom V1 | Schmid \& Partner Engineering |
| Two-Axis/Four-Axis Stage Controller(SHOT-204MS) | SIGMA KOKI Co.,Ltd |

## F. 1 Triggering distances and power levels

## Product moving toward the phantom [Edge 4]






|  |  |  |  |  |  |  |  | verage Step | Band |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dittanse | 27 |  |  | ${ }^{24}$ |  | ${ }^{2} 22$ |  |  |  |  |  |  |  |  |  | IN |
| LTE BW 20 MHz | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 17 | ${ }^{17}$ | 17 |  |  |  |  |  |
| TF EW 15 M Mz | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 2.5 | 17 |  | 17 | -177 |  | 1 | 1 |  |
| LTE EW 10MHz | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 17 | 17 | 17 | ${ }^{17}$ | 17 | 17 | 17 |  |
| LTE EW 5MHz | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 17 | 17 |  |  | 177 | 17 |  |  |
| LTE EW 3M 3 Hz | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 17 | 17 | 17 | 17 | 177 | 17 | 17 |  |
| LTE BW 1.4MHz | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | -17 | 17 | 171 | -17) | - 17 | 171 | 17 |  |





|  | Coverape Step LIE Band 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ditanse | -27 ${ }^{27}$ |  | 25 |  |  | ${ }^{21} 22$ |  |  |  |  |  |  |  |  |  |  |
| DPR | OF | OFF |  |  | OFF | F1 |  | 22. | ON | ON | ON | ON | ON | ON | ON |  |
| LTE EW 20 MHz | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 226 | 22.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | ${ }^{16.6 .6}$ | $\frac{16.6}{166}$ |
| LE EW 19MHz | $\frac{22.6}{22,6}$ | $\stackrel{22,6}{22,6}$ | ${ }^{22.6}$ |  | - ${ }^{22.6}$ | ${ }^{22,6}$ | 22,6 | ${ }^{22.6}$ | ${ }^{16.6}$ | 16.6 <br> 16.6 | 16.6 | ${ }_{16.6}^{16.6}$ | 16.6 | ${ }^{16,6}$ | ${ }_{16.6}^{16.6}$ | 16.6 |
| LTE BW 5 M Hz | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 15.6 | 16.6 | 16.6 |
| LTE BW 3Mil\% | 22.6 | 22.6 | 22.6 | 22.6 | 22,6 | 22.6 | 22.5 | 22.6 |  | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 |  |
| LTE BW 14MHz | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 | 226 | 226 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 |  |








Product moving toward the phantom [Rear/Rear Tilt Edge 4 side/Rear Tilt Edge 2 side]









Product moving toward the phantom [Edge 2]








| Didtance | Coverage Step NR $\mathrm{n}^{\text {5 }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }^{23}$ |  |  |  | 19 | 18 |  |  |  |  |  |  |  |  |  |  |
|  | OFF | OFF | OFF | OFF | OFI | Oft | OFF | OFF | ON | ON | ON | ON | ON | ON | ON | ON |
| NR BW 20M1t | 23.2 | 23.2 | 23.2 | 23.2 | 23,2 | 23.2 | 23.2 | 23.2 |  | 17 | 1 |  | 17 |  | - 17 |  |
| NR BW 15 MHz | 23.2 | 23.2 | 23.2 | 23.2 | 23.2 | 23,2 | 23,2 |  | 17 | 17 | [ 17 | 17 | 17 | 717 | 17 | -17 |
| NR BW 10MHz | ${ }_{23,2}^{232}$ | 23,2 | $\frac{23,2}{232}$ | 23, ${ }^{23,2}$ | 23,2 | 23,2 | $\frac{23.2}{23.2}$ | 23,2 | 17 | 17 | -17 | 17 |  | 7 | -17 |  |
| NR BW 5MHz | 232 |  | 23.2 | 23.2 | 23.2 | 23.2 | 23.2 |  |  |  |  |  |  |  |  |  |







Product moving from the phantom [Edge 4]





|  |  |  |  |  |  |  |  | overase Step | LTE Band |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Didunce | 12 | N |  |  |  | 17 | $\mathrm{ON}^{18}$ | ${ }^{1} \mathrm{ON}{ }^{19}$ | ON 29 |  |  |  | ${ }^{24}{ }^{24}$ |  |  |  |
| OPR | 17 | ON 17 | it | 17 | ON 17 | 17 | ${ }^{\text {On }} 17$ | ${ }^{\text {O }}$ | ON 17 |  | Onk 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |  |
| LTE BW 15 SMHz | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17.17 | 17 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |
| CIE Bxy Iombz | 11 | 17 | 1. | 17 | 1. | 17 | 17 | 7 17 |  | 21.5 | 21.5 |  | 21.5 | 21.5 | 21.5 |  |
| LTE EW 5MMz | 17 | 17 |  | 17 | 17 | 17 | 17 | $7{ }^{17}$ | 17 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |
| LTE EW 3MHz |  |  |  |  |  |  |  |  |  | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |
| LTE BW 1.4M ${ }^{\text {a }}$ | 17 | 17 | 17) | 171 | 17] | 17 | 17 | 171 | 17 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |







Product moving from the phantom [Rear/Rear Tilt Edge 4 side/Rear Tile Edge 2 side]



|  | Coverabe Step LTE Band 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Didtance | $\mathrm{ON}^{2}$ | ON 3 | $\mathrm{ON}^{4}$ | ON 5 | ON |  |  |  | ON 10 | OfF 11 | ${ }^{1}$ OFF 12 | $\square_{\text {OFF }} 131$ | \| 14 | 15 | 16 | 17 |
| LTE BW 20 MHz | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 23 | $3^{3}{ }^{23}$ | 23 | 23 | + | 23 | 23 |
| LTE BW 10 MHz | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| LTE BW 5 MHz | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |








LTE ${ }^{2} 25$
Power Reduction Graph For LTE Band 25






Product moving from the phantom [Edge 2]


|  |  |  |  |  |  |  |  | Coverage St | Step UMTS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Didtance | ${ }^{\text {ON }} 8$ | ON 9 | $\mathrm{ON}^{10}$ | ON 11 | $\mathrm{ON}^{12}$ | ON ${ }^{13}$ | ON | ON 15 |  | 17 | ${ }^{18}$ | 0 EE | 20. | ${ }^{21}$ |  | OFFE |
| UMTS Rel99 Band V | 16.2 | 16.2 | 16.2 | 16.2 | 16.2 | 162 | 16.2 | 16.2 | 16.2 | 22.1 | 221 | 22.1 | 22.1 | 22.1 | 22.1 | 22.1 |
| UMTS Rell99 BAND IV | 17.6 | 17.6 | 17.6 | 17.6 | ${ }^{17.6}$ | 17.6 | 17.6 | 17.6 | 17.6 | 21.8 | 21.8 | 21.8 | 21.8 | 21.8 | 21.8 | 21.8 |
| UMTS Rel99 BAND II | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 16.7 | 15.7 | 16.7 | 16.7 | 22.2 | 22.2 | 22.2 | 22.2 | 22.2 | 22.2 | 22.2 |











|  | Coverage Stap LTE Band 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Didtance <br> DPR |  |  |  |  |  |  | $\mathrm{ON}^{14}$ |  | ON ${ }^{16}$ |  |  |  |  |  |  |  |
| TTF BW 20 MHz | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |  |  |
| LTE BW 15MHz | 17 | 17 |  | 17 |  |  |  | 17 |  | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |
| LTE BW 10MHz | 17 | 17 | 17 |  |  |  |  |  |  |  | 21.5 | 21.5 | 21.3 | 21.5 | 21.5 | 21.5 |
| LTE BW 5MHz | 17 | 17 | 17 | 17 |  | 17 | 17 | 17 | 17 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |
| LTE EW 3MHz | 17 |  |  | 17 |  | 17 | -17 | 17 | 17 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |
| LTE BW 1.4N1t | 17 | 17 | 17 | 17 | 17 | 17 | [17 | 17. | 17 | 21.5) | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |  |









End of Appendixes

