

Grip Sensor Coverage consideration of the SC-02D for the User

FCC ID : A3LSWDSC02D

Date : 2011.11.10

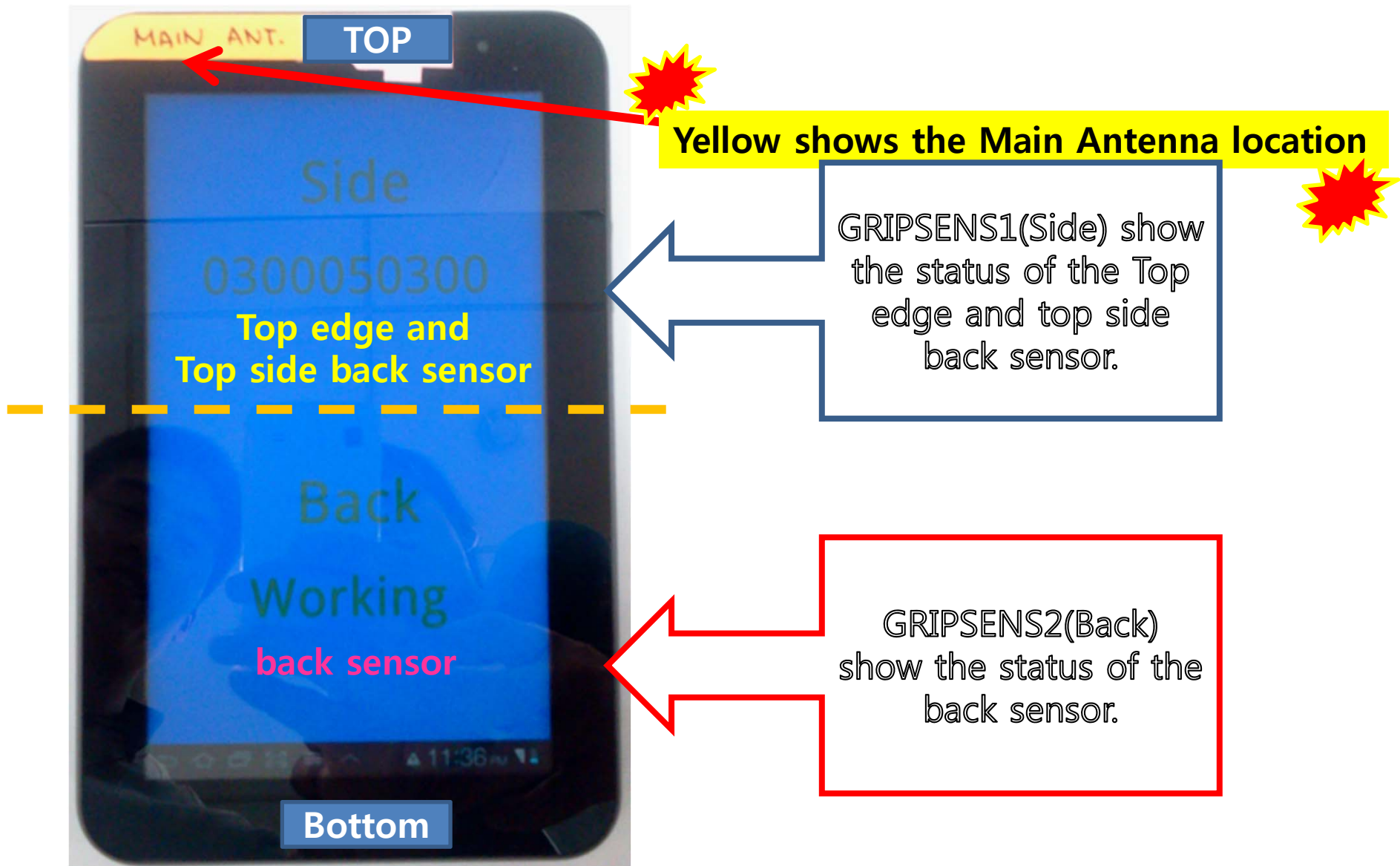
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1. Overview

2. Introduction to the Grip sensor test tool

- I'd like to introduce you one function test of proximity sensor in the A3LSWDSC02D.

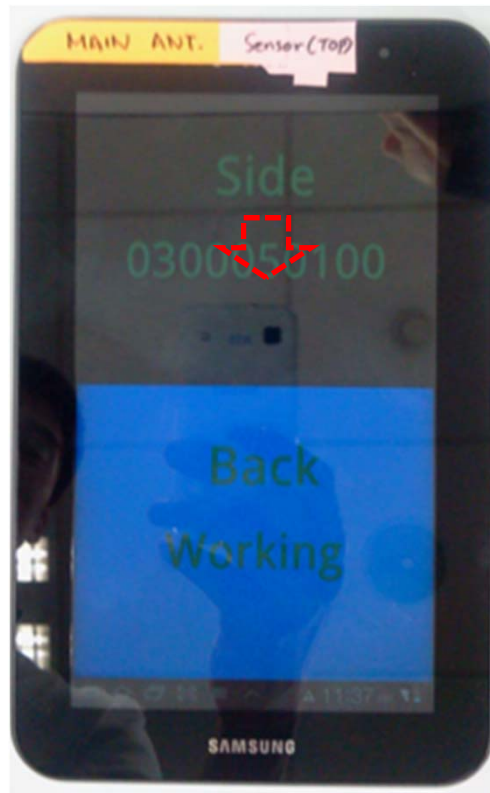


When the sensor detect something, that screen part becomes blue.

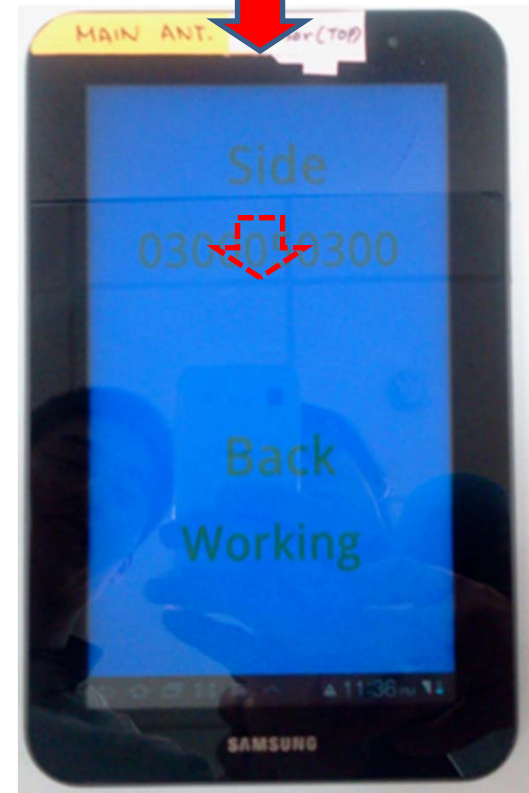
Grip Sensor1 activated
(Top edge or top side
back detect body)



Grip Sensor2 activated
(Back side detect body)

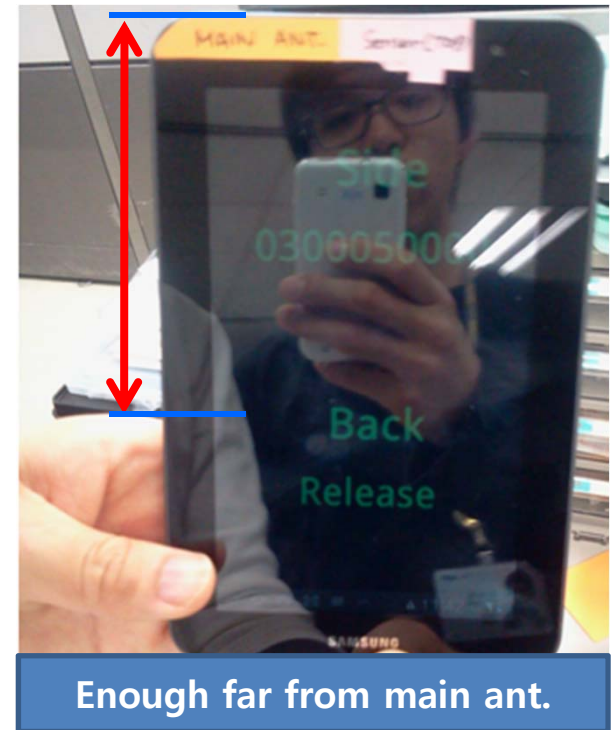
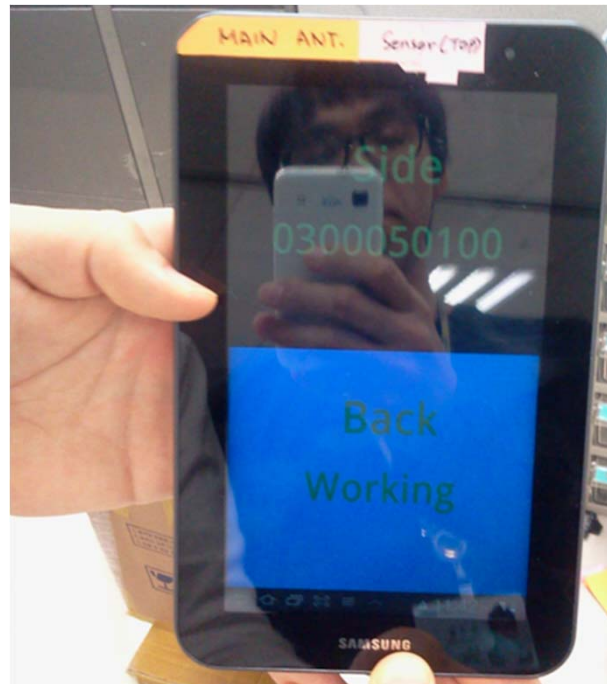
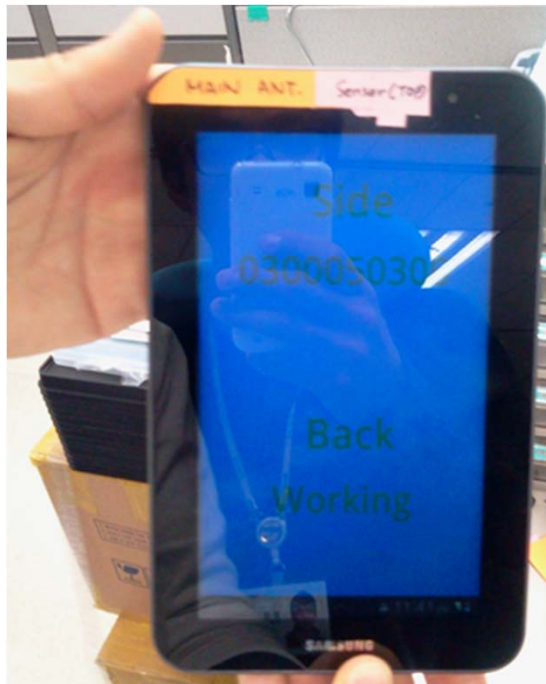


Grip Sensor1 & 2 activated
(Top side and Back detect
body simultaneously)



**3. The Grip sensor activate
on the back side
of the device**

Back side triggering Test (0mm)

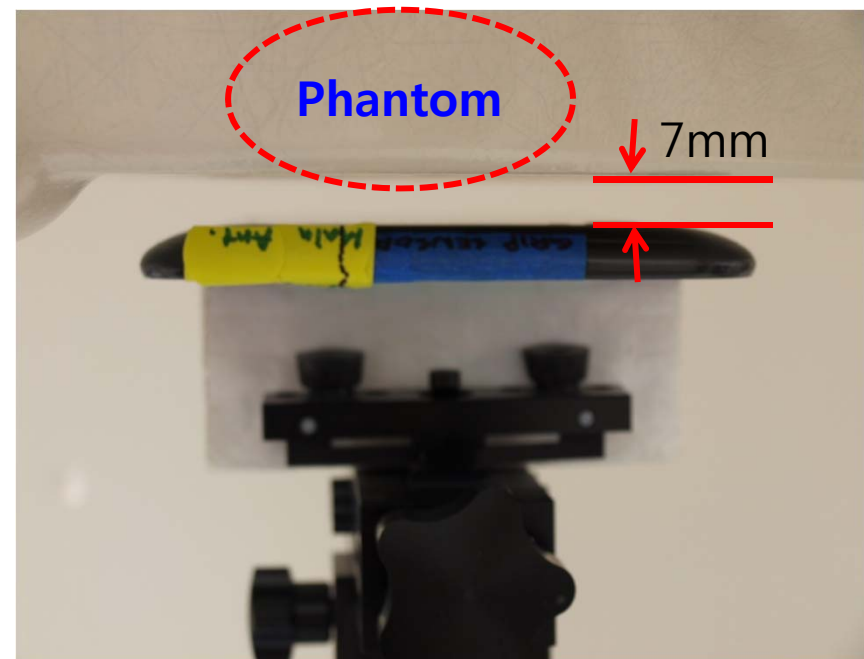
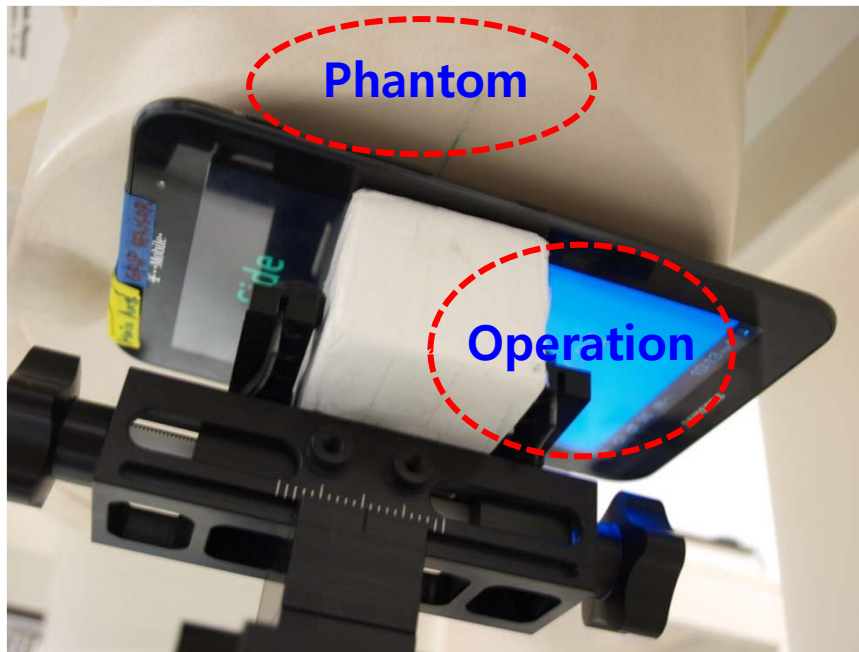


We can know that the Grip sensor 1 & 2 can detect back side from the above pictures because the sensor status screen part becomes blue.

Back side triggering distance Test with Phantom

(con't)

The sensor at the back side is activated.
(Phantom overlap with Grip sensor)
(**Power reduction mode**)



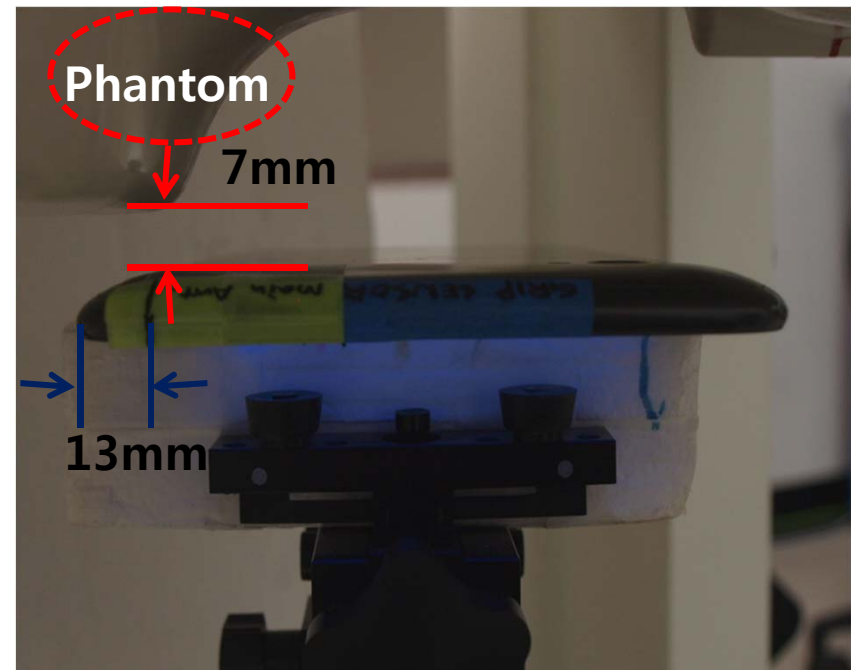
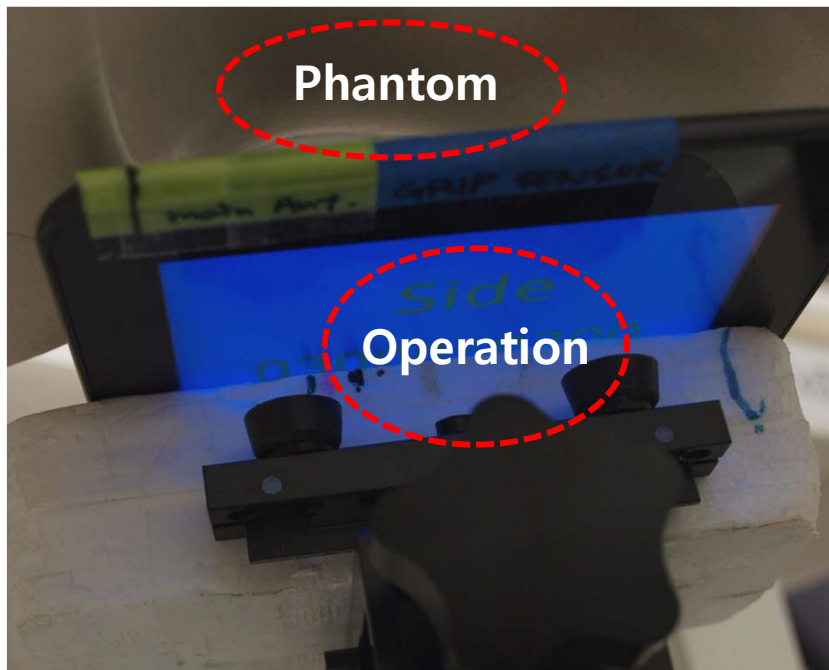
Back side triggering distance Test with Phantom

(con't)

The sensor at the back side is activated at **7mm** distance with the phantom edge.

Sensor activated distance away from left edge.

: **13mm** (**Power reduction mode**)



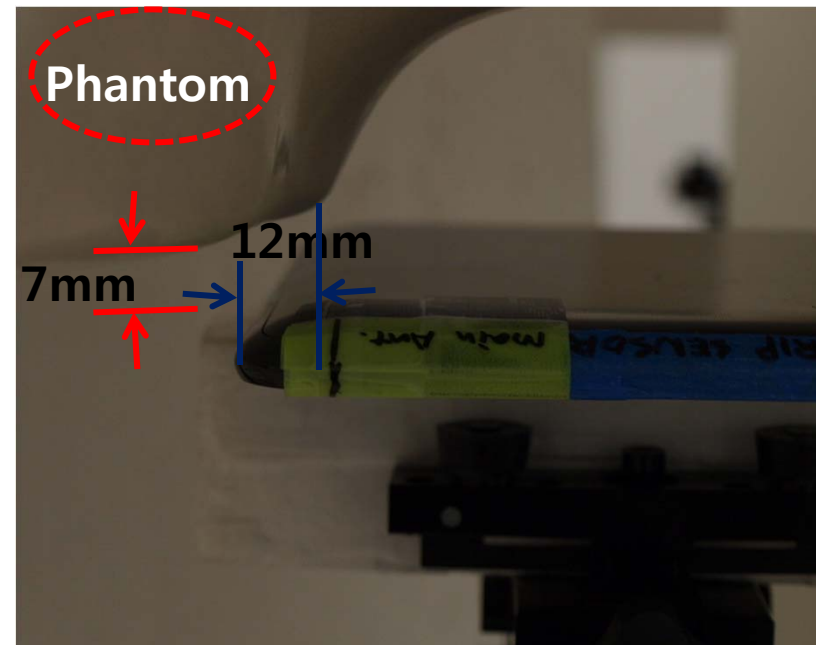
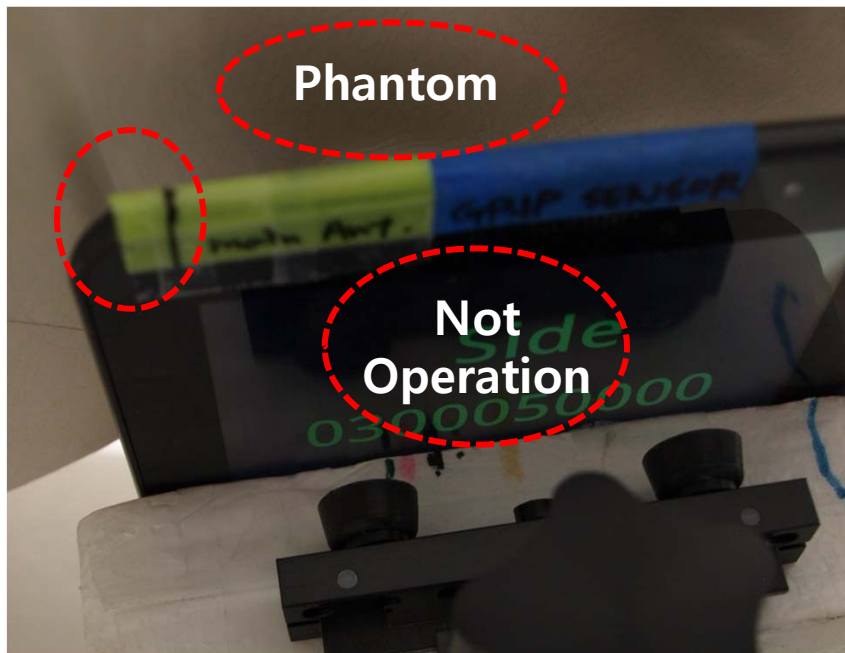
Back side triggering distance Test with Phantom

(con't)

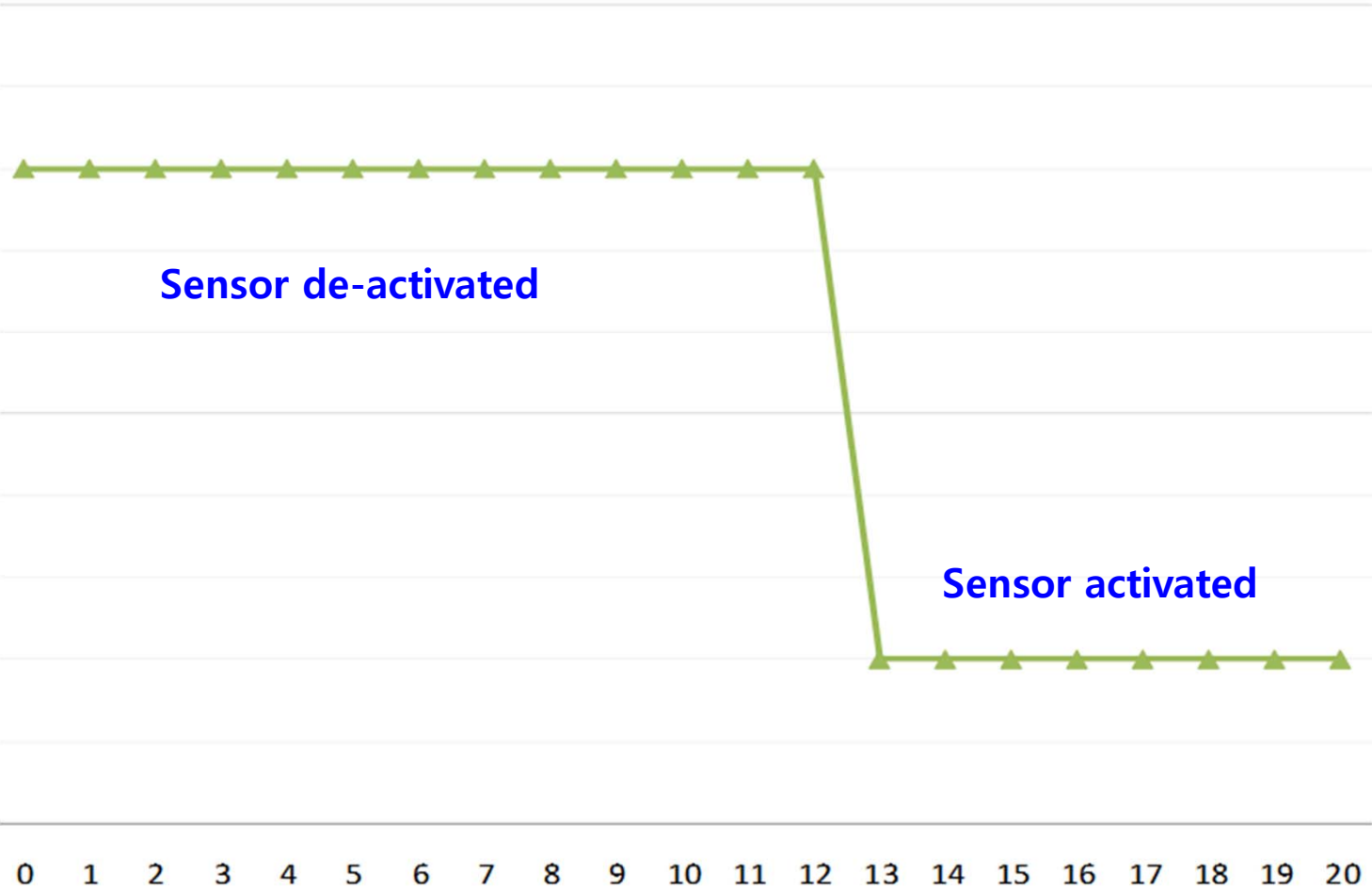
The sensor at the back side is deactivated at **7mm** distance with the phantom edge.

Sensor deactivated distance away from left edge.

: **12mm** (**Full Power mode**)



Sensor triggering distance away from left edge

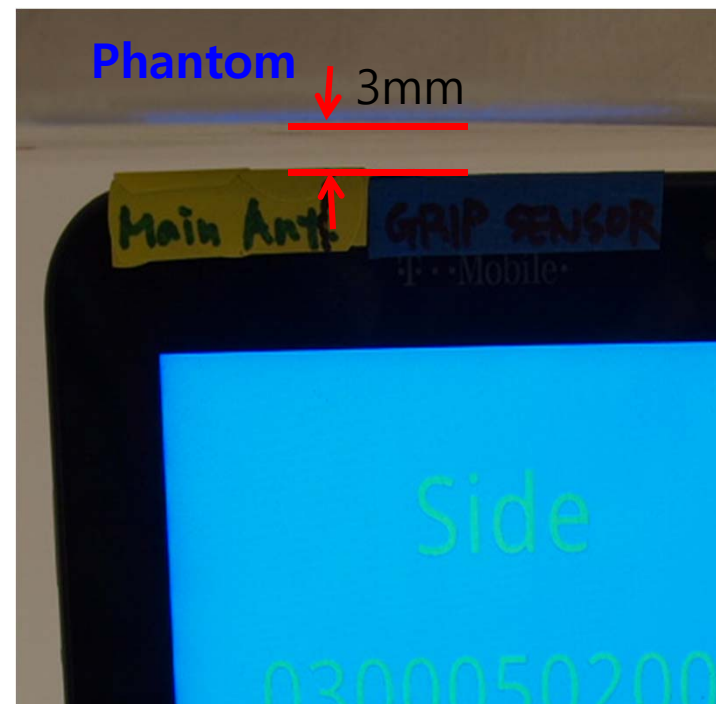


Distance from left edge of DUT (mm)

**4. The Grip sensor activate
on the top edge
of the device**

Top edge triggering distance test with Phantom (con't)

The sensor on the top edge is activated at **3mm** distance with the phantom. (overlap phantom with Grip sensor 1)
(**Power reduction mode**)



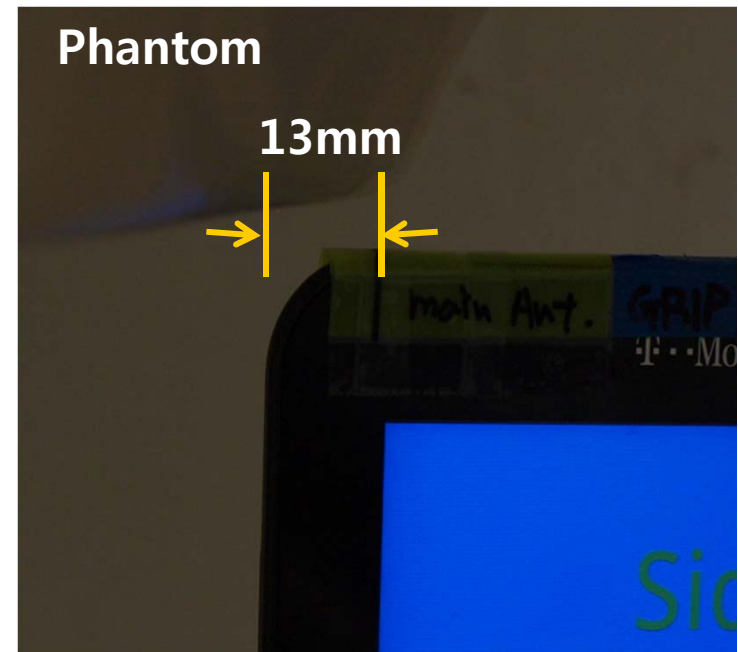
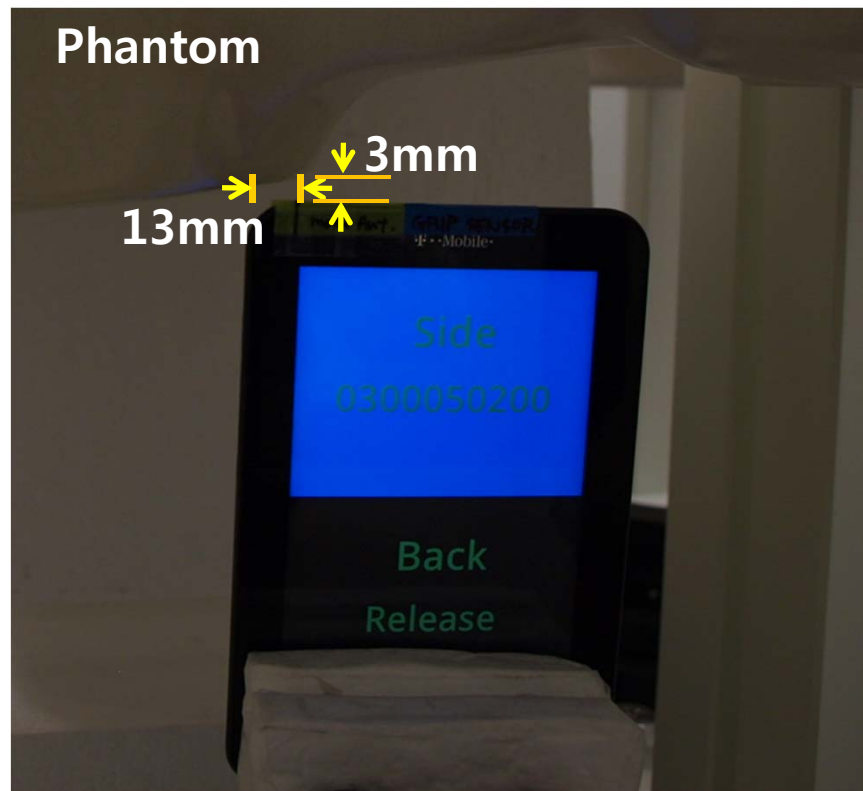
Top edge triggering distance test with Phantom

(con't)

The sensor at the Top side is activated at **3mm** distance with the phantom edge.

Sensor activated distance away from left edge.

: 13mm (**Power reduction mode**)

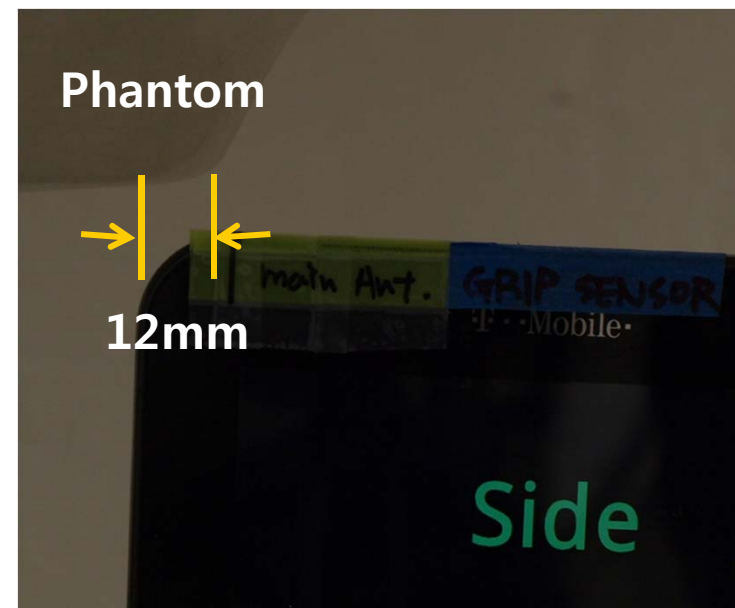
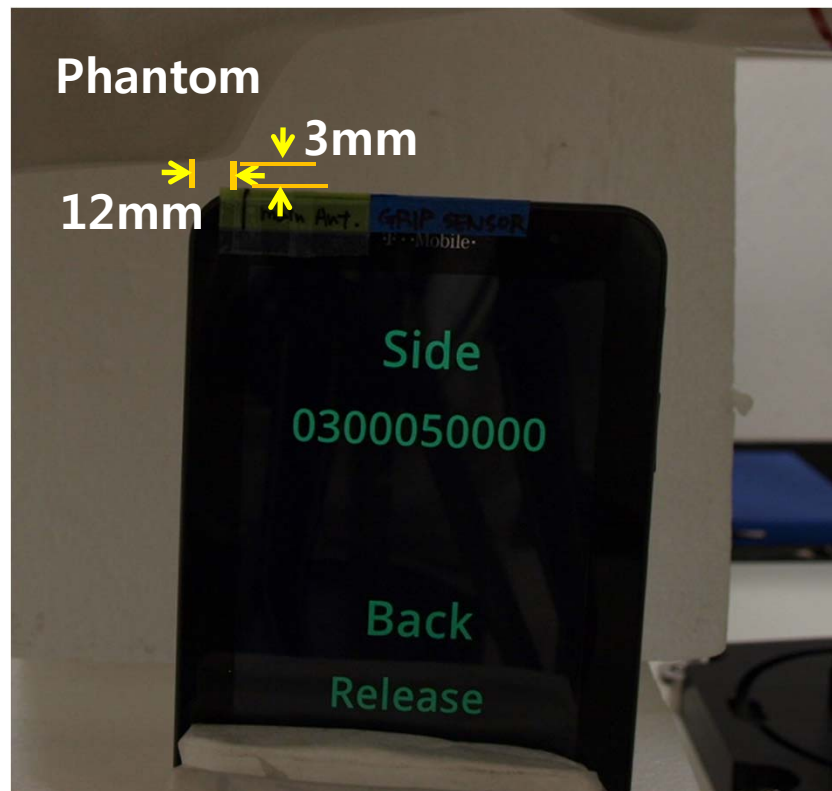


Top edge triggering distance test with Phantom (con't)

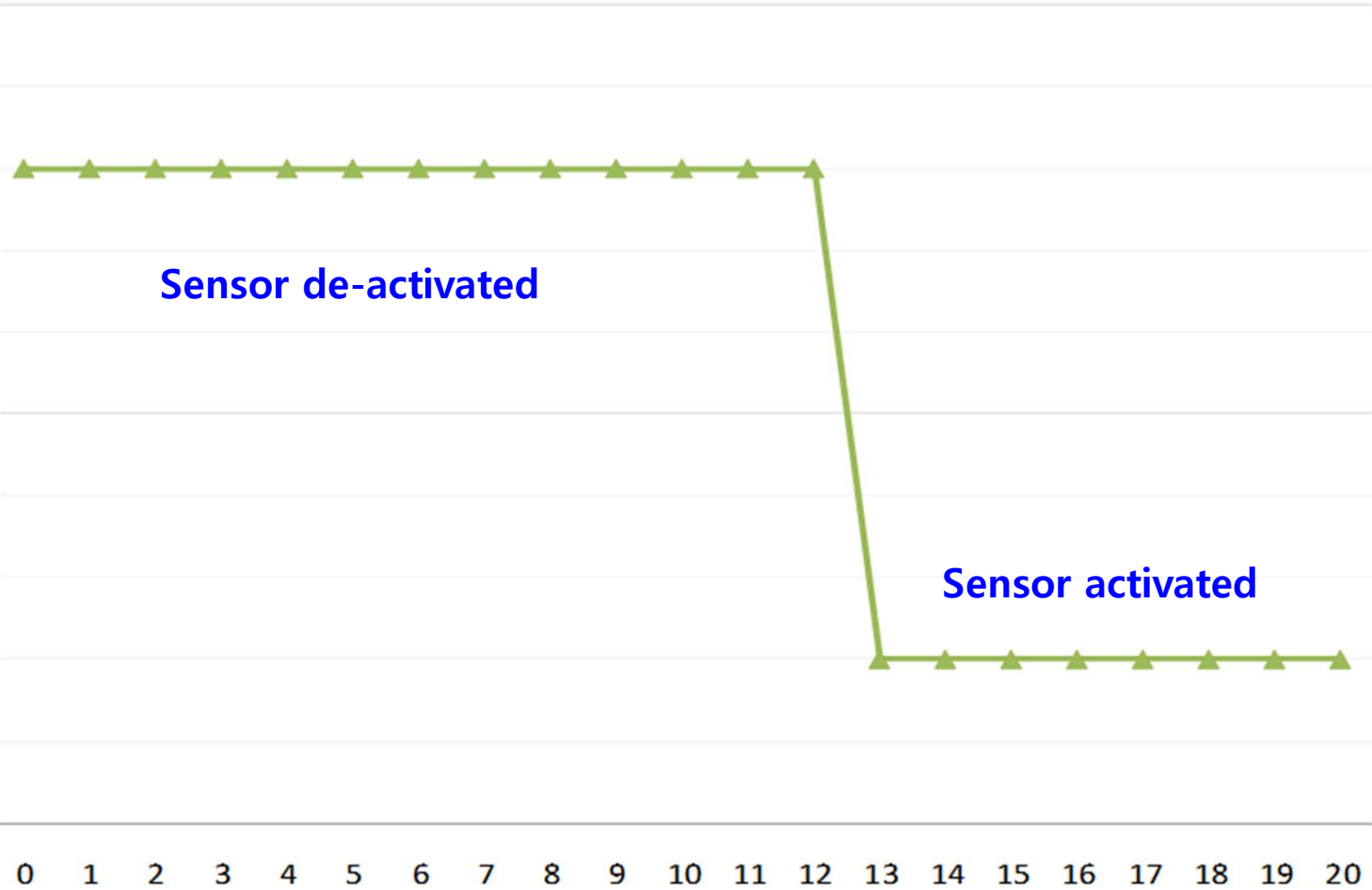
The sensor at the back side is deactivated at **5mm** distance with the phantom edge.

Sensor deactivated distance away from left edge.

: **12mm (Full Power mode)**

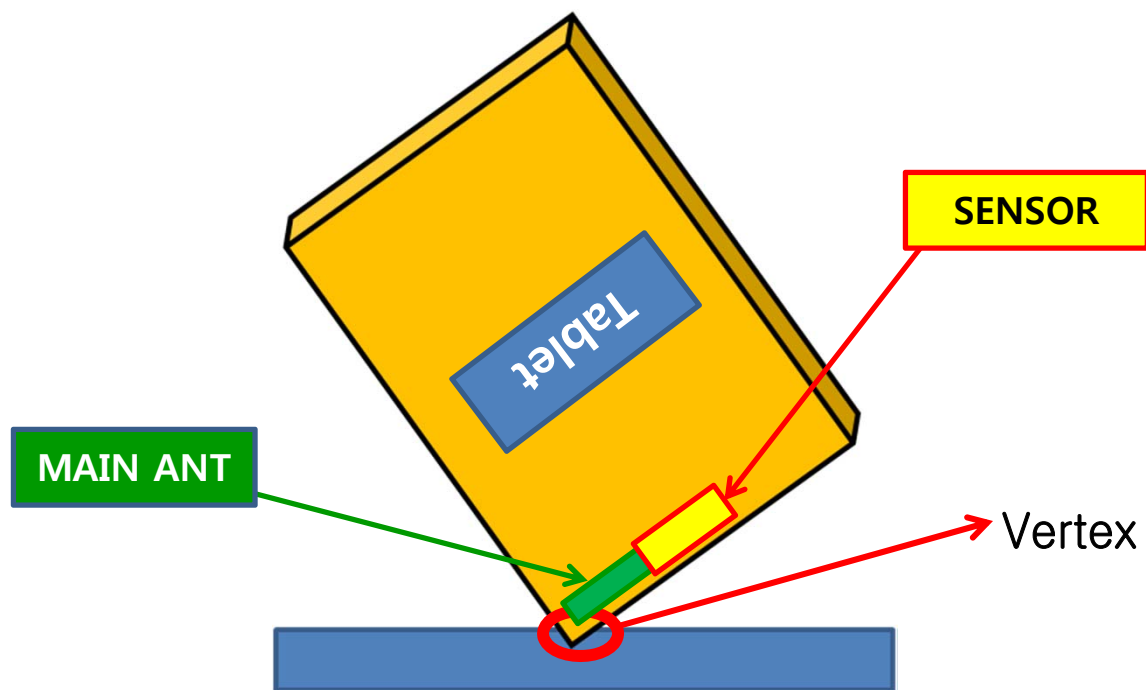


Sensor triggering distance away from left edge



Distance from left edge of DUT (mm)

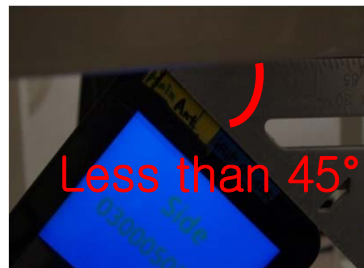
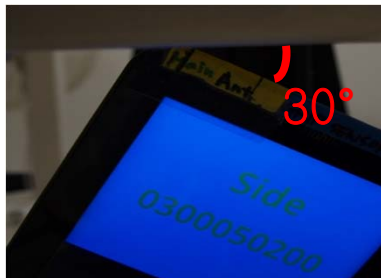
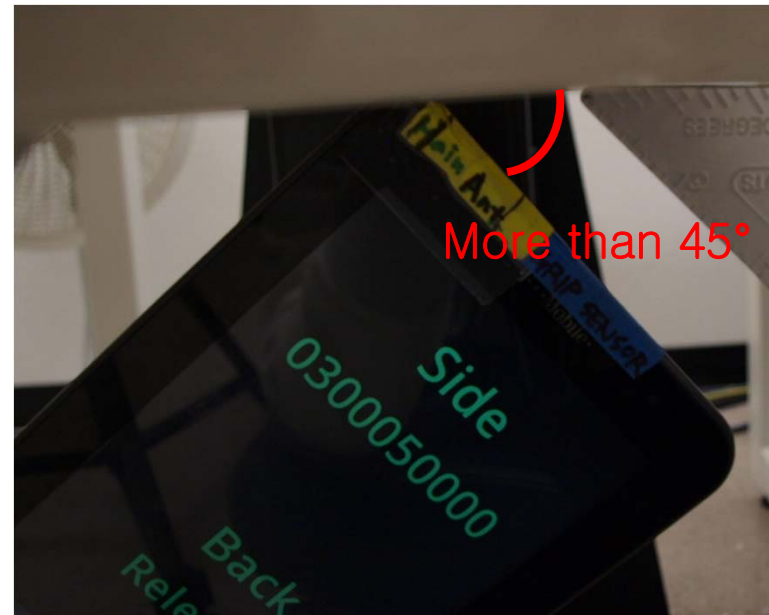
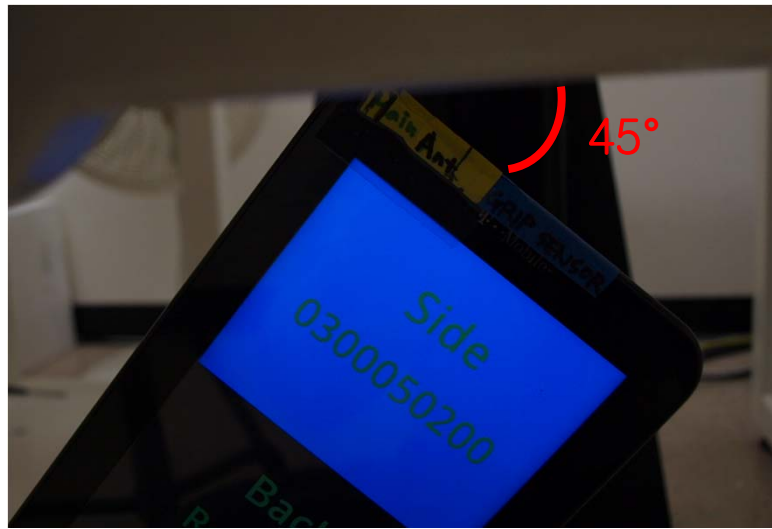
**5. The Grip sensor on the corner
vertex of the device**



The corner vertex of the device doesn't trigger the phantom or user because the vertex is far from the sensor. The pictures in the next document show such a case.

Moreover the SAR Value is under limit at the corner vertex of the device. User can be protected from the transmitted power at the corner.

Triggering angle limit of the corner vertex



– Triggering angle limit : 45°

P2 JPN can not be recognized by grip sensor Higher than 45degree.(triggering angle is between phantom and top side of P2)

Triggering angle of Grip sensor between phantom and the top side

