

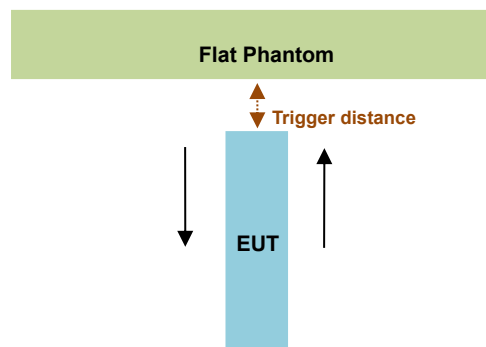
Appendix E. Proximity Sensor Verification

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

For the device is fully integrated, touch sensing capacitive sensor. It uses a charge transfer capacitive acquisition method that is capable of near range proximity detection. In this device offers a state-of-the-art capacitive sensing engine with an embedded sampling capacitor and voltage regulator allowing the overall solution cost to be reduced and improving system immunity in noisy environments.

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 as following, 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.



Ant 1 Proximity Trigger Distance								
Position	Front		Back		Right Edge		Top Edge	
Minimum (mm)	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
	20	26	24	28	25	30	18	28

Ant 4 Proximity Trigger Distance						
Position	Front		Back		Top Edge	
Minimum (mm)	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
	23	27	23	31	30	37

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

Since the antenna and sensor are collocated and all of the peak SAR location is overlapping with the sensor pad for this device, therefore, According to KDB 616217 section 6.3, these procedures do not apply and are not required for this device. due to the antenna and sensor are collocated and the peak SAR location is overlapping with the sensor on this device.

Proximity sensor power reduction in open mode

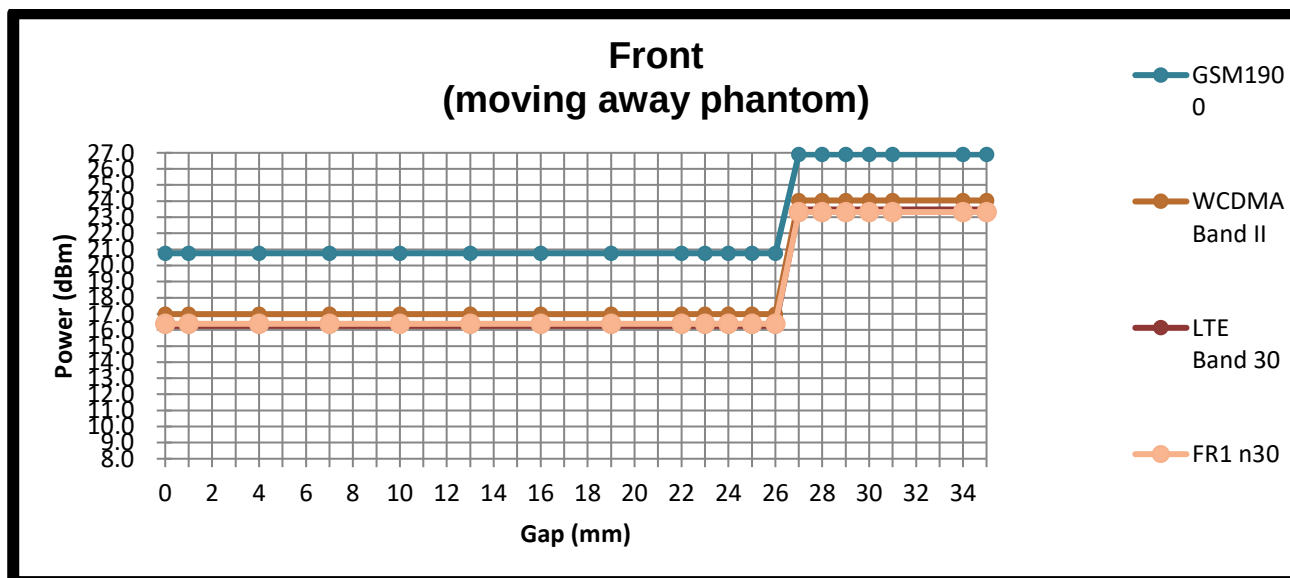
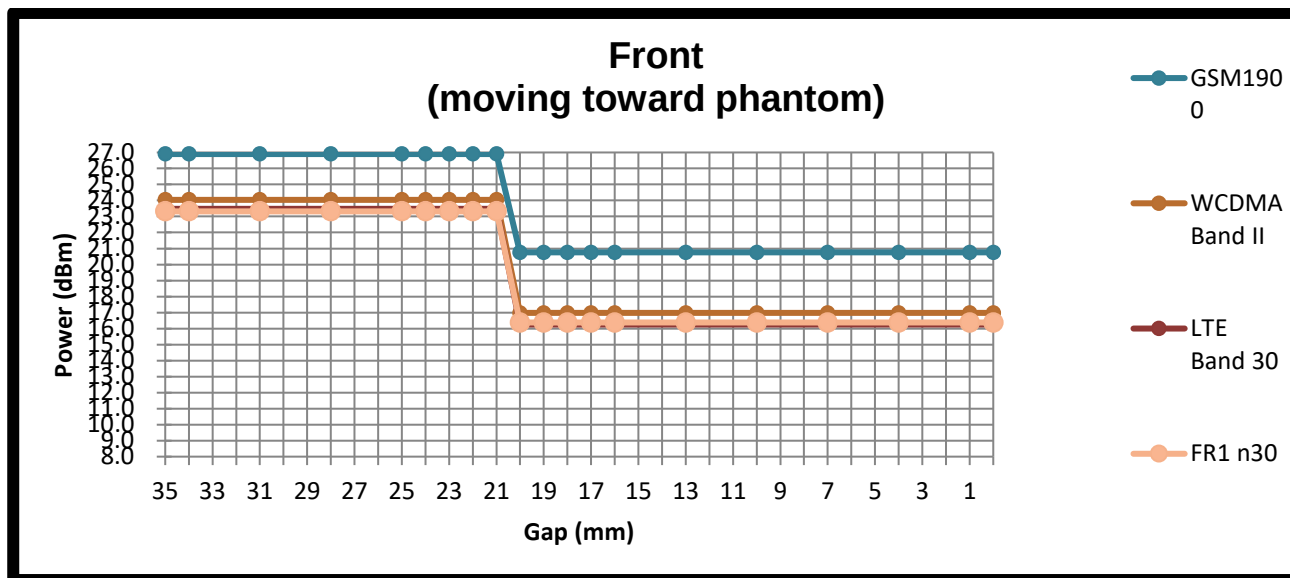
Transmit Ant 1		Transmit Ant 4	
Exposure Position / wireless Band	Front, Back, Right Side, Top Side ⁽¹⁾	Exposure Position / wireless Band	Front, Back, Top Side ⁽¹⁾
GSM1900	6.5 dB	WLAN 2.4GHz	11.5 dB
WCDMA Band II	7.8 dB	WLAN 5GHz	8.5 dB
LTE Band 2	7.3 dB	WLAN 6GHz	9.0 dB
LTE Band 4	6.0 dB		
LTE Band 7	6.0 dB		
LTE Band 25	7.3 dB		
LTE Band 30	8.1 dB		
LTE Band 38	4.0 dB		
LTE Band 38 HPUE	4.3 dB		
LTE Band 41	3.9 dB		
LTE Band 41 HPUE	4.3 dB		
LTE Band 66	6.0 dB		
FR1 n2	6.7 dB		
FR1 n7	5.5 dB		
FR1 n25	6.7 dB		
FR1 n30	8.1 dB		
FR1 n66	6.1 dB		
FR1 n70	4.8 dB		
FR1 n38	5.6 dB		
FR1 n41	5.5 dB		
FR1 n41 HPUE	4.5 dB		
FR1 n48	3.7 dB		
FR1 n77 27O	3.9 dB		
FR1 n77 27O HPUE	3.4 dB		
FR1 n77 27Q	3.9 dB		
FR1 n77 27Q HPUE	3.4 dB		
FR1 n78 27O	3.9 dB		
FR1 n78 27O HPUE	3.4 dB		
FR1 n78 27Q	3.9 dB		
FR1 n78 27Q HPUE	3.4 dB		

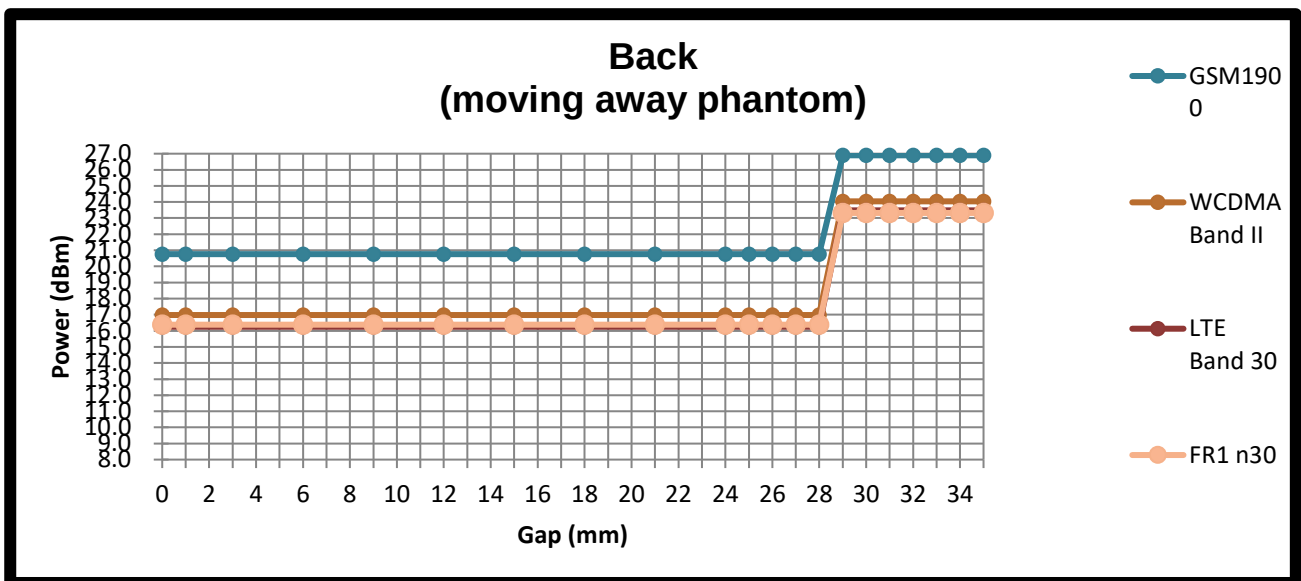
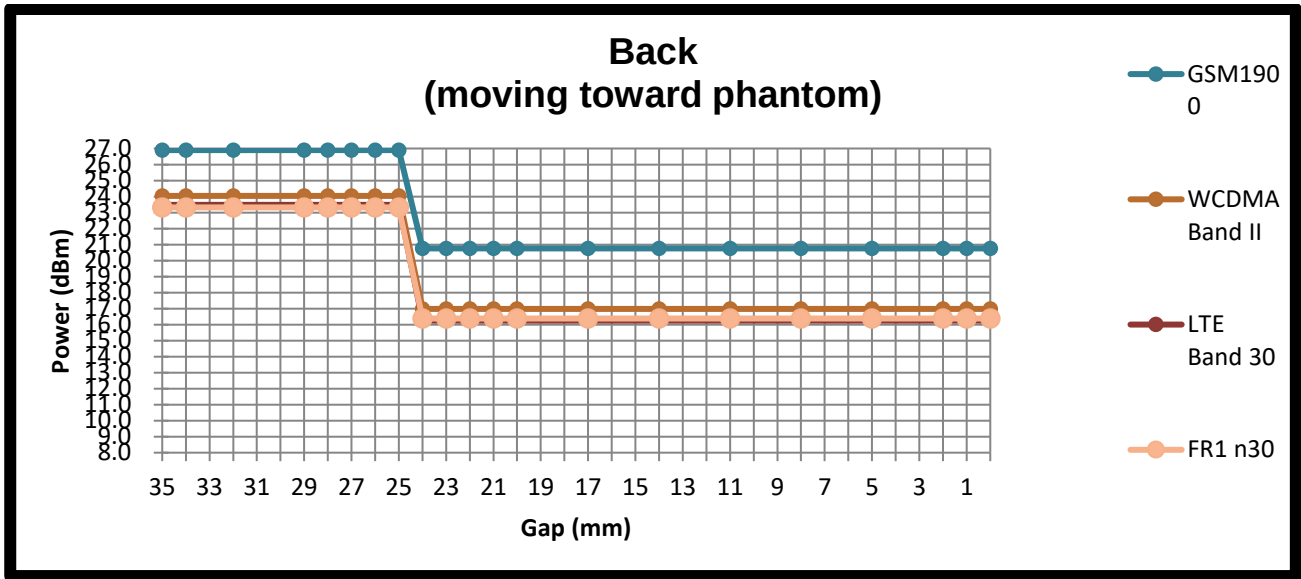
General Note:

- ⁽¹⁾: Reduced maximum limit applied by activation of proximity sensor.
- Tests were performed in accordance with KDB 616217 D04 section 6.1, 6.2, 6.3, 6.4 and 6.5 and compliant results are shown below
- For the power verification was selected worst case power reduction level of band of each transmit antenna to verify.

Power Measurement during Sensor Trigger distance testing

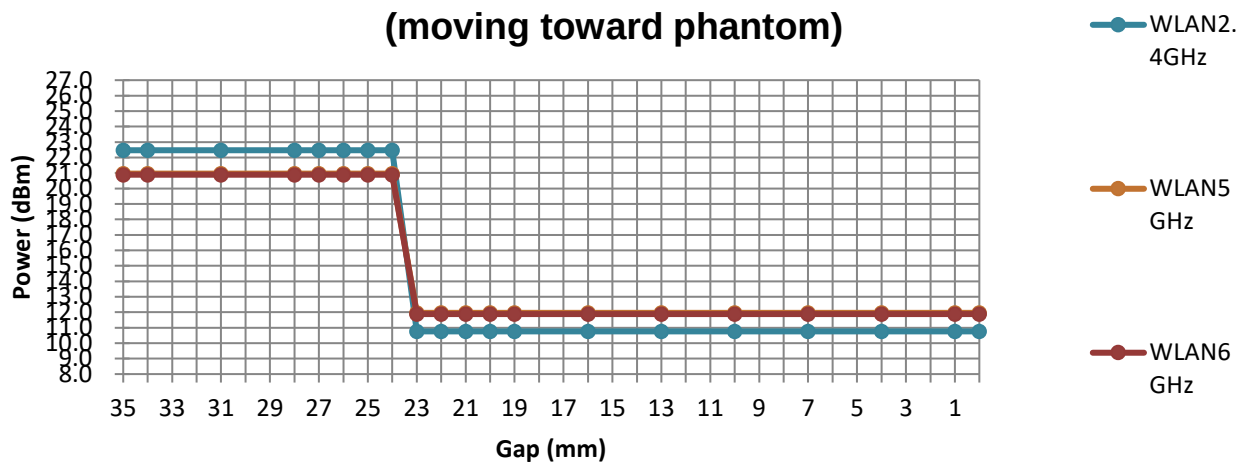
Ant 1



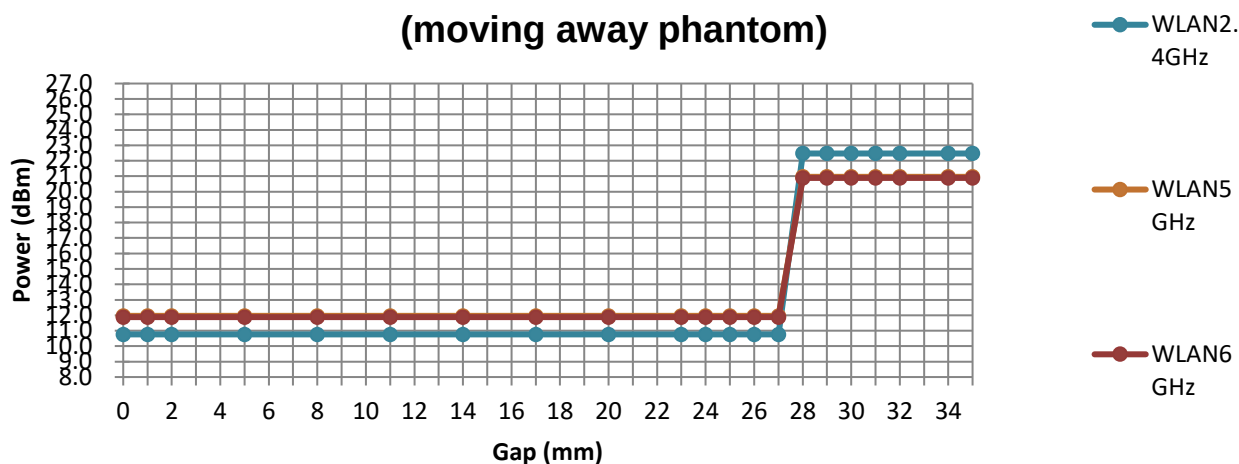


Ant 4

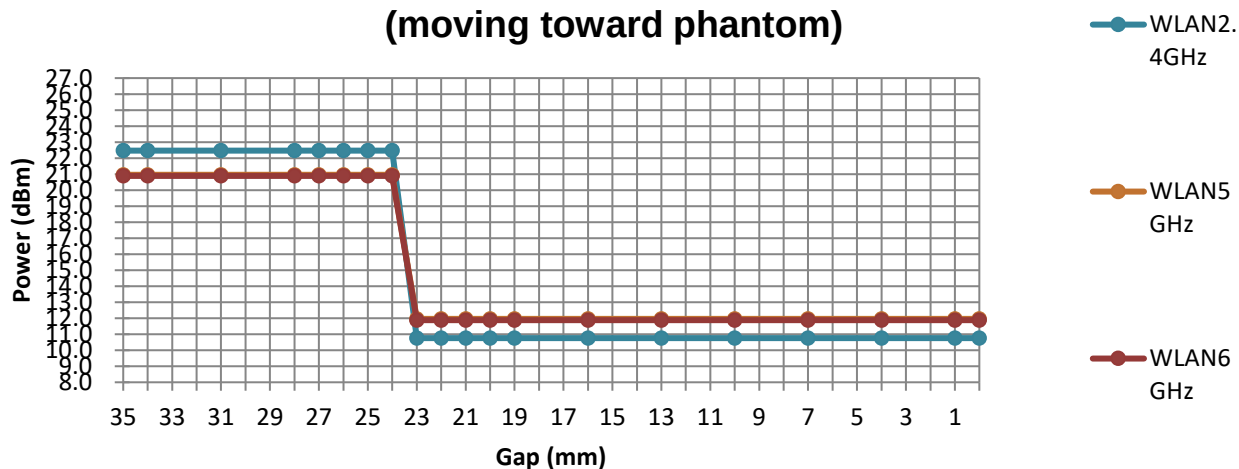
**Front
(moving toward phantom)**



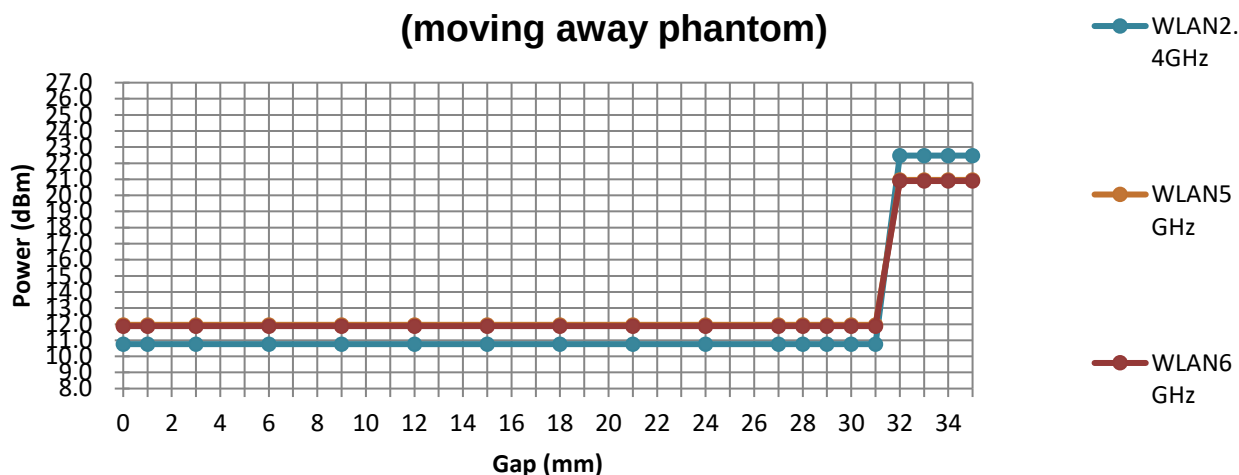
**Front
(moving away phantom)**



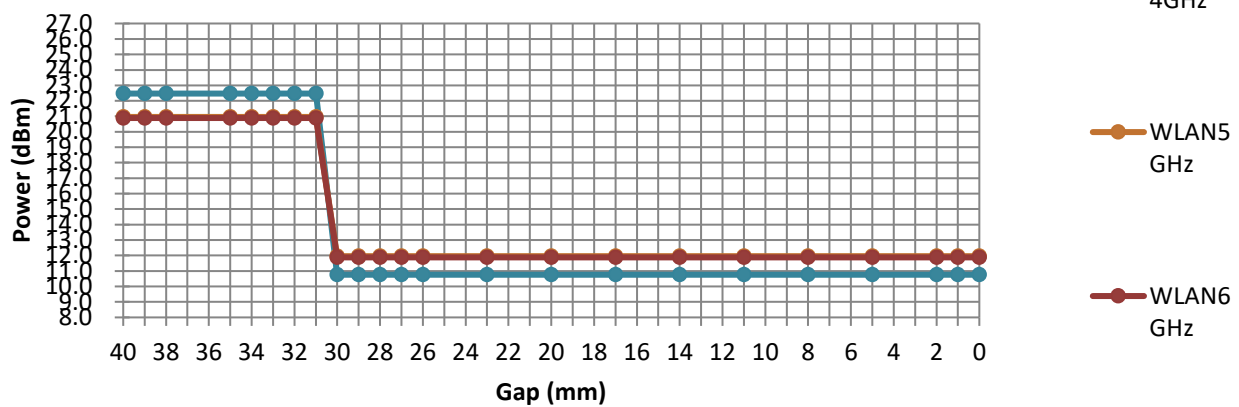
Back (moving toward phantom)



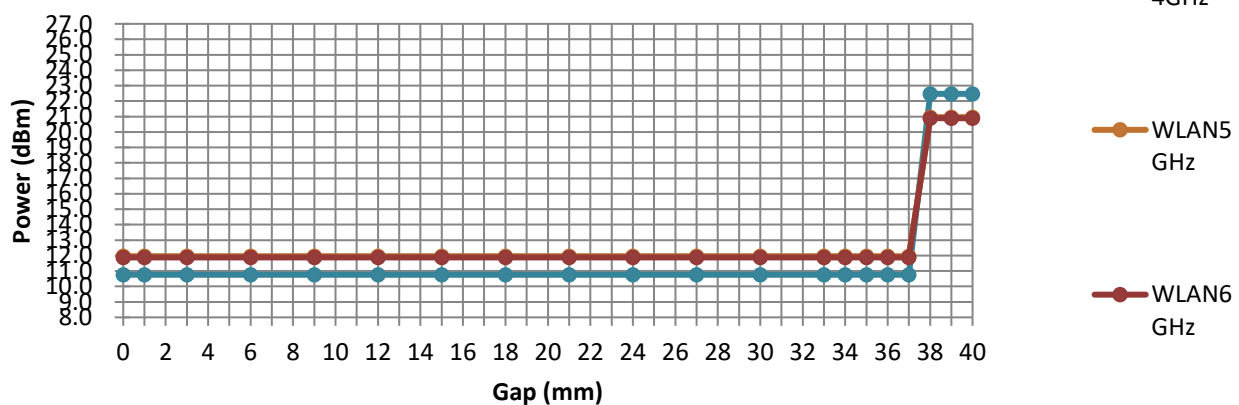
Back (moving away phantom)



Top Edge (moving toward phantom)

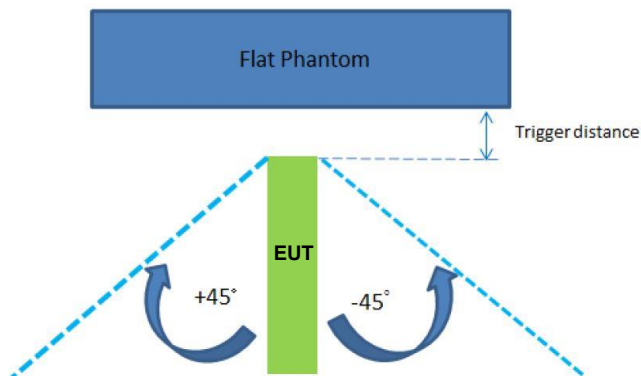


Top Edge (moving away phantom)



<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 above separation distance. 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.



Ant 1 Proximity Trigger Distance				
Position	Right Edge		Top Edge	
Minimum (mm)	+45	-45	+45	-45
	28	28	18	19

Ant 4 Proximity Trigger Distance		
Position	Top Edge	
Minimum (mm)	+45	-45
	31	34

<SAR measurement procedure involving proximity sensors>

Two different maximum output power levels are applied according to the triggering conditions of the proximity sensor. SAR measurements shall be performed for the two different maximum output power state and test distance combinations.

SAR measurements at these two power and distance combinations are enough to ensure compliance for the use conditions requiring proximity sensing and power reduction at the applicable device to user distance.

- a) Full power: The smallest separation distance determined in 6.2, 6.3 and 6.4 for each triggering condition minus 1 mm should be used in the SAR measurements.

Ant 1:

Front: [19 mm](#)
Back: [23 mm](#)
Right Side: [24 mm](#)
Top Side: [17 mm](#)

Ant 4:

Front: [22 mm](#)
Back: [22 mm](#)
Top Side: [29 mm](#)

- b) Reduced power: SAR tests shall be performed at the closest intended use distance or at the closest distance required by the regulator. SAR measurements at these two power and distance combinations are enough to ensure compliance for the use conditions requiring proximity sensing and power reduction at the applicable device to user distance.

Ant 1:

Front: [0 mm, 5 mm](#)
Back: [0 mm, 5mm](#)
Right Side: [0 mm](#)
Top Side: [0 mm](#)

Ant 4:

Front: [0 mm, 5mm](#)
Back: [0 mm, 5mm](#)
Top Side: [0 mm](#)

Appendix E. Lid angle and power verification

General Note:

- The following guidance should be applied to device that use Hall Effect or gravity sensors to detect lid angle for the purpose of power reduction:
 Step 1: With the lid is in closed mode (0 degrees), open the screen in 10 degree steps until laptop mode is obtained
 Step 2: Lower the screen 5 degrees. Closed mode should be reobtained. If not keep lowering in 5 degree steps
 Step 3: Open the screen in 1 degree steps until device is reobtained
 Step 4: Continue opening the screen in 1 degree steps until at least 5 degrees past where device was obtained
 Step 5: Then continue opening the screen in 10 degree steps until device is obtained
 Step 6: Power measurements should be taken at each step
 Step 7: Reverse this procedure going from device in open mode back down to device into closed mode
- The bands demonstrating the worst power reduction were selected to verify power behavior and are listed below.
- WWAN power behavior is verified in body-worn standalone mode, where WLAN and Bluetooth functions are disabled, and the motion and proximity sensors are active. The verification focuses on observing the WWAN power state transition between index 6 (closed mode) and index 11 (open mode) in response to lid angle changes.
- WLAN power behavior is verified in body-worn standalone mode, where the WWAN function is disabled and the motion and proximity sensors are active. The verification focuses on observing the WLAN power state transition between index 4 (closed mode) and index 9 (open mode) in response to lid angle changes.

Lid angle verification between close mode an open mode																		
Screen angle (degree) v.s. power	Wireless		GSM			WCDMA			LTE					FR1				
	Antenna		Ant 0	Ant 1	Ant 2	Ant 0	Ant 2	Ant 1	Ant 5	Ant 0	Ant 2	Ant 6	Ant 1	Ant 5	Ant 0	Ant 2	Ant 1	Ant 6
	Band		GSM 850	GSM 1900	GSM 1900	B5	B2	B2	B25	B25	B25	B48	B25	N25	N25	N25	N25	N48
	Close mode to open mode	0	26.55	20.85	18.26	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99	17.51
		6	26.55	20.85	18.26	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99	17.51
		7	26.55	20.85	18.26	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99	17.51
		8	26.55	20.85	18.26	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99	17.51
		9	26.55	20.85	18.26	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99	17.51
		10	26.55	20.85	18.26	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99	17.51
		11	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		12	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		13	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		14	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		15	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		20	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		30	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		40	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		50	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		60	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		70	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		80	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		90	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
		100	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	110	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	120	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	130	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	140	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	150	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
160	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72		
170	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72		
180	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72		
Open mode to close mode	180	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	170	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	160	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	150	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	140	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	
	130	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72	



	120	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	110	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	100	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	90	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	80	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	70	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	60	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	50	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	40	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	30	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	20	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	10	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	9	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	8	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	7	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	6	26.17	20.45	18.70	23.65	15.43	23.30	16.71	14.52	14.76	18.70	17.56	16.34	13.07	13.93	19.68	16.72
	5	26.55	20.85	18.26	24.79	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99
	4	26.55	20.85	18.26	24.79	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99
	3	26.55	20.85	18.26	24.79	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99
	2	26.55	20.85	18.26	24.79	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99
	1	26.55	20.85	18.26	24.79	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99
	0	26.55	20.85	18.26	24.79	23.66	14.02	17.42	17.32	14.83	14.09	20.96	17.36	17.72	13.98	14.18	17.99

Lid angle verification between close mode an open mode						
Screen angle (degree) v.s. power	Wireless		WLAN Ant 3		WLAN Ant 4	
	Band		2.4GHz WLAN	5.2GHz WLAN	2.4GHz WLAN	5.2GHz WLAN
Close mode to open mode	0		10.85	14.57	10.72	14.66
	6		10.85	14.57	10.72	14.66
	7		10.85	14.57	10.72	14.66
	8		10.85	14.57	10.72	14.66
	9		10.85	14.57	10.72	14.66
	10		10.85	14.57	10.72	14.66
	11		9.93	11.74	9.85	11.85
	12		9.93	11.74	9.85	11.85
	13		9.93	11.74	9.85	11.85
	14		9.93	11.74	9.85	11.85
	15		9.93	11.74	9.85	11.85
	20		9.93	11.74	9.85	11.85
	30		9.93	11.74	9.85	11.85
	40		9.93	11.74	9.85	11.85
	50		9.93	11.74	9.85	11.85
	60		9.93	11.74	9.85	11.85
	70		9.93	11.74	9.85	11.85
	80		9.93	11.74	9.85	11.85
	90		9.93	11.74	9.85	11.85
	100		9.93	11.74	9.85	11.85
	110		9.93	11.74	9.85	11.85
	120		9.93	11.74	9.85	11.85
	130		9.93	11.74	9.85	11.85
	140		9.93	11.74	9.85	11.85
	150		9.93	11.74	9.85	11.85
	160		9.93	11.74	9.85	11.85
	170		9.93	11.74	9.85	11.85
	180		9.93	11.74	9.85	11.85
Open mode to close mode	180		9.93	11.74	9.85	11.85
	170		9.93	11.74	9.85	11.85
	160		9.93	11.74	9.85	11.85
	150		9.93	11.74	9.85	11.85
	140		9.93	11.74	9.85	11.85
	130		9.93	11.74	9.85	11.85
	120		9.93	11.74	9.85	11.85
	110		9.93	11.74	9.85	11.85
	100		9.93	11.74	9.85	11.85
	90		9.93	11.74	9.85	11.85
	80		9.93	11.74	9.85	11.85
	70		9.93	11.74	9.85	11.85
	60		9.93	11.74	9.85	11.85
	50		9.93	11.74	9.85	11.85
	40		9.93	11.74	9.85	11.85
	30		9.93	11.74	9.85	11.85
	20		9.93	11.74	9.85	11.85
	10		9.93	11.74	9.85	11.85
	9		9.93	11.74	9.85	11.85
	8		9.93	11.74	9.85	11.85
	7		9.93	11.74	9.85	11.85
	6		9.93	11.74	9.85	11.85
	5		10.85	14.57	10.72	14.66
	4		10.85	14.57	10.72	14.66
	3		10.85	14.57	10.72	14.66
	2		10.85	14.57	10.72	14.66
	1		10.85	14.57	10.72	14.66
	0		10.85	14.57	10.72	14.66

Appendix E. Power reduction mechanism verification

1. Power verification introduction

- This device supports the manufacturer's proprietary power reduction mechanisms for cellular and Wi-Fi transmitters. Further details of the specific mechanisms for the power reduction mechanism can be found in the Operational Description
- Demonstration of proper functioning of the detection and triggering mechanisms to support the corresponding RF exposure conditions, the verification plan consists of measuring the power levels of the cellular and Wi-Fi transmitters at each wireless technology under different operating conditions related to the power reduction mechanisms.
- This device incorporates the WWAN and WLAN TAS algorithm feature and through under varying Tx power transmission scenarios in real-time to maintain the time-averaged Tx power compliant with FCC RF exposure requirement. In this power validation purpose is to demonstrate of proper functioning of the detection and triggering mechanisms to support the corresponding RF exposure conditions. In order to avoid real-time TX power varying may affect monitor output power related to the power reduction mechanisms, therefore WWAN and WLAN real-time TX power varying was disabled and keep in static output power for power reduction mechanism validation.
- For testing purposes, the device was measured against each Index supported for the cellular and Wi-Fi technologies. The target power level and measured power levels are detailed in the following table and clearly shows that each power reduction mechanism operates as expected.

2. Power verification procedure

- The verification is through a base station simulator is used to establish a conducted RF connection and record output power under different operating conditions related to the power reduction mechanisms.
- Verification of power reduction levels for Wi-Fi is performed with cellular transmitters on and off, for cellular is performed with Wi-Fi transmitters on and off.
- Verification of RCV mechanism is via establish voice call and audio routed through the earpiece to record output power under head power states.
- Verification of Hotspot power reduction is via establish data connection and enable hotspot feature to record output power under hotspot power state.

3. Test setup for conducted power measurement

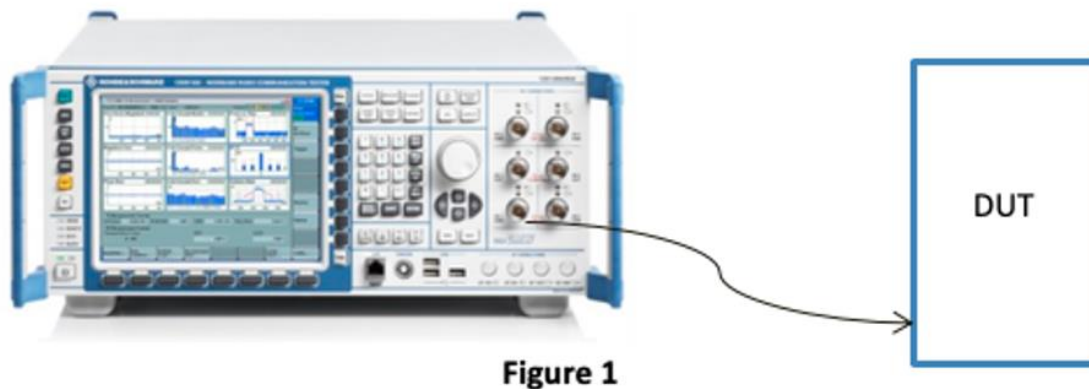


Figure 1

4. Verification output Power Results

Head exposure conditions

Close Mode		Output Power for Voice Call			
Ear acoustic output Status:		ON		ON	
WiFi Status:		OFF		ON	
Power state		ECI 2		ECI 3	
Wireless technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
GSM850 (Voice)	Ant 0	32.19	33.20	32.19	33.20
	Ant 1	32.00	33.20	32.00	33.2
UMTS Band 2	Ant 2	23.39	24.80	23.39	24.80
	Ant 1	23.12	23.80	23.12	22.60
LTE Band 25 (FDD)	Ant 2	23.44	24.80	23.44	24.80
	Ant 1	22.85	24.40	21.65	23.20
LTE Band 26 (FDD)	Ant 0	24.06	25.10	24.06	25.10
	Ant 1	24.15	25.00	24.15	25.00
LTE Band 41 (TDD)	Ant 2	23.59	24.90	23.59	24.90
	Ant 1	23.35	24.90	23.35	24.90
NR SA n66	Ant 2	24.42	24.80	24.42	24.80
	Ant 1	23.58	24.80	23.58	24.80

Close Mode		Output Power for Voice Call			
Ear acoustic output Status:		ON		ON	
WWAN Status:		OFF		ON	
Power state		WiFi Index 1		WiFi Index 2	
Wireless technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
WiFi 802.11g CH6	(Ant4+3)Ant 3	21.12	23.00	20.38	21.50
	(Ant4+3)Ant 4	21.10	23.00	20.45	21.50
WiFi 802.11a 6Mbps CH44	(Ant4+3)Ant 3	18.02	19.00	15.42	16.50
	(Ant4+3)Ant 4	18.52	19.00	15.25	16.50

Hotspot exposure condition

Close Mode		Output Power for data connection			
Wifi Hotspot Status		ON		OFF	
BT Hotspot Status		OFF		ON	
Power state		ECI 6 WIFI Index 4		ECI 6 WIFI Index 4	
Wireless Technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
GSM1900 (4TX)	Ant 2	16.35	18.20	16.35	18.20
	Ant 1	18.72	20.10	18.72	20.10
UMTS Band 2	Ant 2	12.95	14.80	12.95	14.80
	Ant 1	14.85	16.30	14.85	16.30
LTE Band 25 (FDD)	Ant 2	12.76	14.20	12.76	14.20
	Ant 1	15.98	17.20	15.98	17.20
LTE Band 7 (FDD)	Ant 2	10.62	12.50	10.62	12.50
	Ant 1	16.42	17.80	16.42	17.80
LTE Band 38 (TDD)	Ant 2	12.12	13.60	12.12	13.60
	Ant 1	18.62	20.00	18.62	20.00
NR SA n7	Ant 2	11.25	12.50	11.25	12.50
	Ant 1	15.62	17.50	15.62	17.50
WiFi 802.11b CH6	(Ant4+3)Ant 3	10.85	12.50		
	(Ant4+3)Ant 4	10.72	12.50		
WiFi 802.11a UNII ,CH44	(Ant4+3)Ant 3	14.57	15.00		
	(Ant4+3)Ant 4	14.66	15.00		

Head exposure conditions

Open Mode		Output Power for Voice Call			
Ear acoustic output Status:		ON		ON	
WiFi Status:		OFF		ON	
Power state		ECI 7		ECI 8	
Wireless technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
GSM850 (1TX)	Ant 0	32.19	33.20	32.19	33.20
	Ant 1	32.00	33.20	32.0	33.20
UMTS Band 2	Ant 2	23.43	24.80	23.43	24.80
	Ant 1	18.43	20.10	18.43	20.10
LTE Band 25 (FDD)	Ant 2	23.47	24.80	23.47	24.80
	Ant 1	18.68	20.10	18.68	20.10
LTE Band 30 (FDD)	Ant 2	23.35	24.70	23.35	24.70
	Ant 1	16.86	18.00	16.86	18.00
LTE Band 41 (TDD)	Ant 2	23.67	24.90	23.67	24.90
	Ant 1	17.72	19.40	17.72	19.40
NR SA n7	Ant 2	24.41	25.00	24.43	25.00
	Ant 1	16.12	18.00	16.12	18.00

Open Mode		Output Power for Voice Call			
Ear acoustic output Status:		ON		ON	
WWAN Status:		OFF		ON	
Power state		WIFI Index 5		WIFI Index 5	
Wireless technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
WiFi 802.11g CH6	(Ant4+3)Ant 3	6.54	8.00	6.48	8.00
	(Ant4+3)Ant 4	6.72	8.00	6.42	8.00
WiFi 802.11a 6Mbps UNII CH44	(Ant4+3)Ant 3	6.85	8.00	6.66	8.00
	(Ant4+3)Ant 4	6.82	8.00	6.54	8.00

Hotspot exposure condition

Open Mode		Output Power for data connection			
Wifi Hotspot Status		ON		OFF	
BT Hotspot Status		OFF		ON	
Power state		ECI 11 WIFI Index 9		ECI 11 WIFI Index 9	
Wireless	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
Technology					
GSM1900 (4TX)	Ant 2	16.56	18.20	16.56	18.20
	Ant 1	16.90	18.60	16.90	18.60
UMTS Band 2	Ant 2	13.69	15.50	13.69	15.50
	Ant 1	13.52	15.00	13.52	15.00
LTE Band 25 (FDD)	Ant 2	13.88	15.50	13.88	15.50
	Ant 1	13.65	15.60	13.65	15.60
LTE Band 7 (FDD)	Ant 2	10.12	12.00	10.12	12.00
	Ant 1	13.95	15.40	13.95	15.40
LTE Band 38 (TDD)	Ant 2	12.05	13.90	12.05	13.90
	Ant 1	15.81	17.70	15.81	17.70
NR SA n7	Ant 2	11.76	13.00	11.76	13.00
	Ant 1	13.65	15.50	13.65	15.50
WiFi 802.11b CH6	(Ant4+3)Ant 3	9.93	11.50		
	(Ant4+3)Ant 4	9.85	11.50		
WiFi 802.11a CH44	(Ant4+3)Ant 3	11.74	13.00		
	(Ant4+3)Ant 4	11.85	13.00		

Body worn exposure condition

Open Mode		Output Power for data connection			
WIFI/BT Status		OFF		ON	
Proximity Sensor		OFF		OFF	
Power state		ECI 0		ECI 0	
Wireless Technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
GSM1900 (4TX)	Ant 1	25.92	27.30	25.92	27.30
UMTS Band 2	Ant 1	23.55	24.80	23.55	24.80
LTE Band 25(FDD)	Ant 1	23.68	24.80	23.68	24.80
LTE Band 7 (FDD)	Ant 1	23.29	25.00	23.29	25.00
LTE Band 38(TDD)	Ant 1	23.42	25.00	23.42	25.00
NR SA n25	Ant 1	23.66	24.80	23.66	24.80
WWAN Status		OFF		ON	
Proximity Sensor		OFF		OFF	
Power state		WIFI Index 6		WIFI Index 7	
Wireless Technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
WiFi 802.11b CH6	(Ant4+3)Ant 3	14.15	16.00	10.15	11.50
	(Ant4+3)Ant 4	21.22	23.00	21.12	23.00
WiFi 802.11a CH44	(Ant4+3)Ant 3	14.25	16.00	11.62	13.00
	(Ant4+3)Ant 4	18.16	19.50	18.52	19.50

Open Mode		Output Power for data connection			
WIFI/BT Status		OFF		ON	
Proximity Sensor		ON		ON	
Power state		ECI 9		ECI 10	
Wireless Technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
GSM1900 (4TX)	Ant 1	21.06	22.00	19.76	20.80
UMTS Band 2	Ant 1	17.66	18.20	15.85	17.00
LTE Band 25(FDD)	Ant 1	17.25	18.70	16.16	17.50
LTE Band 7 (FDD)	Ant 1	18.79	20.20	17.66	19.00
LTE Band 38(TDD)	Ant 1	20.35	22.20	19.12	21.00
NR SA n25	Ant 1	19.68	20.80	18.51	19.60
WWAN Status		OFF		ON	
Proximity Sensor		ON		ON	
Power state		WIFI Index 8		WIFI Index 9	
Wireless Technology	Antenna	Measured (dBm)	Max. Tune-up (dBm)	Measured (dBm)	Max. Tune-up (dBm)
WiFi 802.11b CH6	(Ant4+3)Ant 3	14.33	16.00	9.93	11.50
	(Ant4+3)Ant 4	14.35	16.00	9.85	11.50
WiFi 802.11a CH44	(Ant4+3)Ant 3	14.68	16.00	11.74	13.00
	(Ant4+3)Ant 4	14.69	16.00	11.85	13.00