

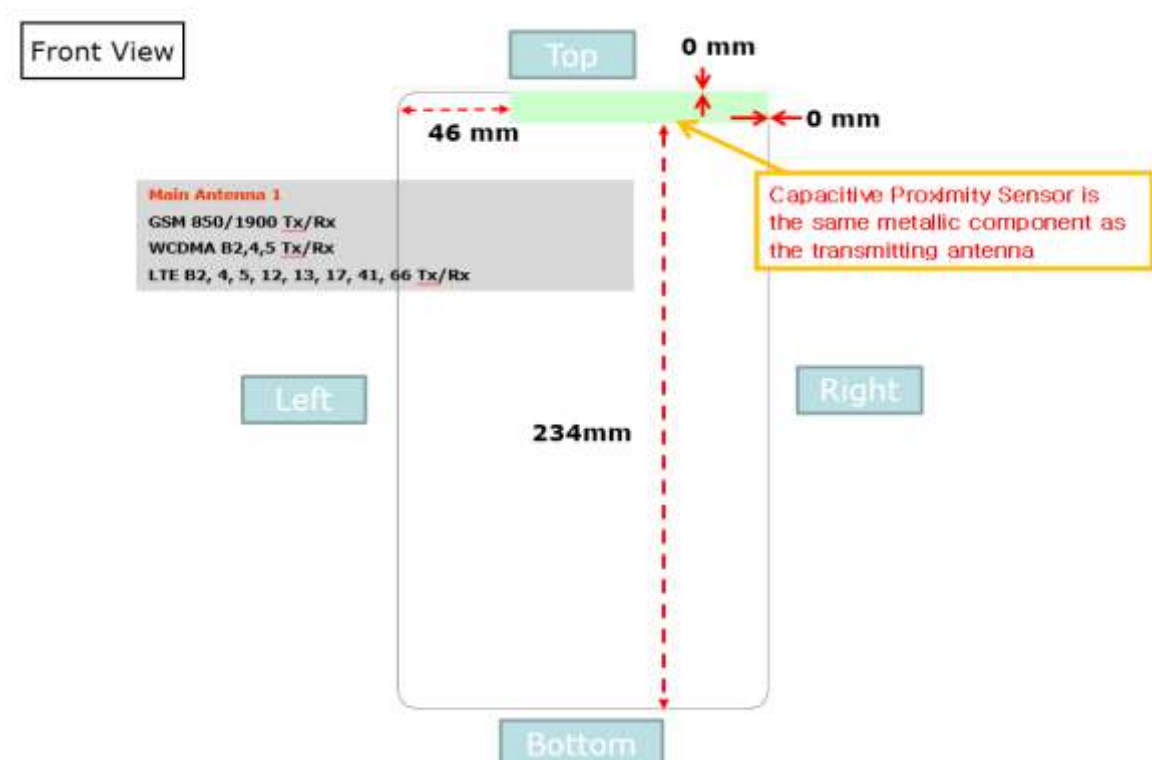
The Verification of Power Reduction

Per the May 2017 TCBC Workshop notes, demonstration of proper functioning of the power reduction mechanism is required to support the corresponding SAR Configurations.

Evaluation of the triggering distances for proximity sensor.

1. Power Reduction Verification for Main Antenna

This device utilizes a power reduction mechanism for Main Antenna wireless modes and bands for SAR compliance under some conditions when the device is being used in close proximity to the user's hand. All SAR evaluations for this device were performed at the maximum allowed output Power when Proximity Sensor is activated. FCC KDB Publication 616217D04v01r02 section 6 was used as a guideline for selection SAR test distances for this device when being used in proximity sensor used conditions. For detailed measurement conducted power results, please refer to the Section .9 of SAR Report



1.1 Power Verification Procedure for Main Ant.

The Power verification was performed according to the following procedure:

Power Reduction Verification for Main Bands

Mechanism(s)	Mode/Band	Conducted Power (dBm)	
		Un-triggered (Max Power)	Triggered (Reduced Power)
Proximity sensor On	GSM850 Voice	32.33	26.37
Proximity sensor On	GSM850 GPRS 1Tx	32.42	26.27
Proximity sensor On	GSM850 GPRS 2Tx	30.14	22.12
Proximity sensor On	GSM850 GPRS 3Tx	28.31	21.05
Proximity sensor On	GSM850 GPRS 4Tx	27.21	19.04
Proximity sensor On	GSM850 EGPRS 1Tx	26.44	20.66
Proximity sensor On	GSM850 EGPRS 2Tx	24.17	19.2
Proximity sensor On	GSM850 EGPRS 3Tx	22.95	17.22
Proximity sensor On	GSM850 EGPRS 4Tx	22.31	15.87
Proximity sensor On	GSM1900 Voice	32.33	22.29
Proximity sensor On	GSM1900 GPRS 1Tx	32.42	22.18
Proximity sensor On	GSM1900 GPRS 2Tx	30.14	20.18
Proximity sensor On	GSM1900 GPRS 3Tx	28.31	18.55
Proximity sensor On	GSM1900 GPRS 4Tx	27.21	17.46
Proximity sensor On	GSM1900 EGPRS 1Tx	26.44	18.54
Proximity sensor On	GSM1900 EGPRS 2Tx	24.17	17.04
Proximity sensor On	GSM1900 EGPRS 3Tx	22.95	15.24
Proximity sensor On	GSM1900 EGPRS 4Tx	22.31	14.69
Proximity sensor On	WCDMA Band 5	23.76	16.48
Proximity sensor On	WCDMA Band 4	23.42	13.5
Proximity sensor On	WCDMA Band 2	24.52	12.86
Proximity sensor On	LTE Band 2	24.11	13.47
Proximity sensor On	LTE Band 4	23.39	12.45
Proximity sensor On	LTE Band 5	23.4	14.95
Proximity sensor On	LTE Band 12	23.24	14.26
Proximity sensor On	LTE Band 13	23.22	14.46
Proximity sensor On	LTE Band 17	23.26	15.73
Proximity sensor On	LTE Band 41	24.34	14.83
Proximity sensor On	LTE Band 66	23.54	11.71

1.2 Procedures for determining proximity sensor triggering distances

(KDB 616217 D04v01r02 §6.2)

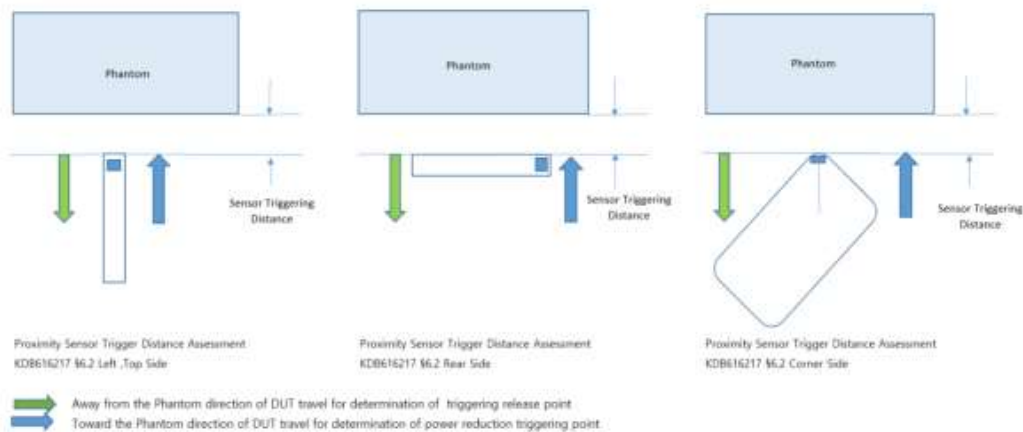
The distance verification procedure was performed according to the following procedure:

A base station simulator was used to establish an RF connection and to monitor the power levels. The device being tested was placed below the relevant section of the phantom with the relevant side or edge of the device facing toward the phantom.

The device was moved toward and away from the phantom to determine the distance at which the mechanism triggers and the output power is reduced, per KDB Publication 616217 D04v01r02 .Each applicable test position was evaluated. The distance were conformed to be the same or larger (more conservative) than the minimum distances provided by the manufacturer.

Step 1 and 2 were repeated for the relevant modes, as appropriate

Step1 through 3 were repeated for all distance-based power reduction mechanisms.
For detailed measurement conducted power results, please refer to the Section .9



Tissue simulating Liquid	Trigger distance - Rear		Trigger distance - Top		Trigger distance - Right		Trigger distance - Right corner	
	Moving toward phantom	Moving away from phantom	Moving toward phantom	Moving away from phantom	Moving toward phantom	Moving away from phantom	Moving toward phantom	Moving away from phantom
750MHz Muscle	17	18	18	19	7	8	7	9
835 MHz Muscle	17	18	18	19	7	8	7	9
1750 MHz Muscle	17	18	18	19	7	8	7	9
1900 MHz Muscle	17	18	18	19	7	8	7	9
2600 MHz Muscle	17	18	18	19	7	8	7	9

Distance Measurement verification for Proximity sensor

Rear side – EUT Moving toward (trigger) to the Phantom GSM 850

Distance	Distance to DUT Output power (dBm)									
	22	21	20	19	18	17	16	15	14	13
GSM850 Voice	32.31	32.25	32.27	32.29	32.37	26.38	26.34	26.35	26.35	26.29
GSM850 GPRS 1Tx	32.39	32.33	32.43	32.39	32.37	26.15	26.34	26.15	26.31	26.31
GSM850 GPRS 2Tx	29.97	30.07	30.13	30	30.16	21.98	22.03	22.07	22.01	22
GSM850 GPRS 3Tx	28.29	28.22	28.22	28.3	28.13	21.02	21.04	21.05	21.06	21.08
GSM850 GPRS 4Tx	27.15	27.07	27.18	27.08	27.06	19.02	19.01	18.92	19.05	19.06
GSM850 EGPRS 1Tx	26.28	26.34	26.36	26.34	26.41	20.77	20.73	20.8	20.79	20.64
GSM850 EGPRS 2Tx	24.26	24.15	24.3	24.2	24.26	19.3	19.31	19.34	19.39	19.38
GSM850 EGPRS 3Tx	22.94	22.91	23	23	22.94	17.06	17.09	17.1	17.16	17.06
GSM850 EGPRS 4Tx	22.19	22.26	22.17	22.26	22.16	15.84	15.86	15.81	15.85	15.74

Rear side – EUT Moving toward (trigger) to the Phantom GSM 1900

Distance	Distance to DUT Output power (dBm)									
	22	21	20	19	18	17	16	15	14	13
GSM1900 Voice	32.31	32.42	32.37	32.37	32.4	22.32	22.21	22.21	22.34	22.34
GSM1900 GPRS 1Tx	32.33	32.45	32.32	32.4	32.41	22.11	22.28	22.27	22.08	22.11
GSM1900 GPRS 2Tx	30.22	30.16	30.04	30.24	30.21	20.22	20.2	20.16	20.12	20.17
GSM1900 GPRS 3Tx	28.21	28.32	28.41	28.29	28.25	18.58	18.65	18.57	18.58	18.45
GSM1900 GPRS 4Tx	27.19	27.18	27.3	27.13	27.3	17.41	17.42	17.48	17.36	17.47
GSM1900 EGPRS 1Tx	26.5	26.39	26.34	26.44	26.48	18.55	18.54	18.52	18.47	18.56
GSM1900 EGPRS 2Tx	24.08	24.14	24.27	24.23	24.12	17.11	16.99	17.08	17	17.09
GSM1900 EGPRS 3Tx	22.89	22.93	22.85	22.98	23.04	15.32	15.29	15.25	15.16	15.18
GSM1900 EGPRS 4Tx	22.39	22.34	22.25	22.23	22.26	14.73	14.71	14.61	14.74	14.7

Rear side – EUT Moving toward (trigger) to the Phantom WCDMA B5/B4/B2, LTE B2/B4/B5/B12/B13/B17/B41/B66

Distance	Distance to DUT Output power (dBm)									
	22	21	20	19	18	17	16	15	14	13
WCDMA Band 5	23.6	23.65	23.67	23.64	23.76	16.33	16.47	16.42	16.51	16.51
WCDMA Band 4	23.59	23.59	23.45	23.58	23.59	13.56	13.48	13.56	13.59	13.57
WCDMA Band 2	24.44	24.37	24.55	24.52	24.48	12.84	12.94	12.92	12.76	12.74
LTE Band 2	24.05	24.05	24.14	24	24.14	13.54	13.47	13.53	13.54	13.54
LTE Band 4	23.53	23.51	23.49	23.52	23.45	12.38	12.53	12.42	12.4	12.45
LTE Band 5	23.4	23.39	23.34	23.39	23.42	14.88	15.01	15.03	14.97	15.03
LTE Band 12	23.41	23.26	23.41	23.25	23.4	14.28	14.37	14.24	14.24	14.38
LTE Band 13	23.23	23.3	23.3	23.22	23.38	14.39	14.32	14.35	14.38	14.27
LTE Band 17	23.33	23.25	23.35	23.36	23.27	15.79	15.87	15.8	15.86	15.67
LTE Band 41	24.24	24.36	24.24	24.24	24.3	14.82	14.78	14.74	14.84	14.77
LTE Band 66	23.4	23.49	23.41	23.44	23.42	12.57	12.53	12.58	12.57	12.46

Rear side – EUT Moving away (Release) from the Phantom GSM850

Distance	Distance to DUT Output power (dBm)									
	14	15	16	17	18	19	20	21	22	23
GSM850 Voice	26.36	26.27	26.27	26.23	26.36	32.35	32.29	32.24	32.33	32.37
GSM850 GPRS 1Tx	26.19	26.33	26.23	26.25	26.21	32.42	32.37	32.3	32.48	32.3
GSM850 GPRS 2Tx	21.99	22.1	22.13	22.1	22.06	30.05	30.02	30.01	30.01	30.17
GSM850 GPRS 3Tx	20.94	20.93	20.9	21.03	20.94	28.33	28.3	28.2	28.3	28.18
GSM850 GPRS 4Tx	19.05	19.06	18.95	18.9	18.95	27.15	27.09	27.18	27.1	27.01
GSM850 EGPRS 1Tx	20.79	20.73	20.78	20.64	20.67	26.29	26.48	26.4	26.48	26.48
GSM850 EGPRS 2Tx	19.33	19.25	19.25	19.37	19.36	24.18	24.13	24.25	24.17	24.17
GSM850 EGPRS 3Tx	17.17	17.13	17.1	17.25	17.17	23.04	23	23.02	22.92	22.87
GSM850 EGPRS 4Tx	15.75	15.75	15.78	15.86	15.76	22.13	22.28	22.28	22.29	22.28

Rear side – EUT Moving away (Release) from the Phantom GSM 1900

Distance	Distance to DUT Output power (dBm)									
	14	15	16	17	18	19	20	21	22	23
GSM1900 Voice	22.37	22.33	22.32	22.21	22.19	32.22	32.29	32.32	32.25	32.38
GSM1900 GPRS 1Tx	22.27	22.23	22.19	22.26	22.18	32.34	32.51	32.34	32.33	32.45
GSM1900 GPRS 2Tx	20.28	20.28	20.27	20.17	20.22	30.15	30.21	30.22	30.09	30.14
GSM1900 GPRS 3Tx	18.57	18.51	18.61	18.58	18.62	28.34	28.22	28.21	28.3	28.39
GSM1900 GPRS 4Tx	17.48	17.37	17.55	17.37	17.47	27.15	27.21	27.2	27.26	27.11
GSM1900 EGPRS 1Tx	18.55	18.63	18.44	18.54	18.45	26.48	26.46	26.35	26.42	26.38
GSM1900 EGPRS 2Tx	16.94	17.01	17.09	16.99	16.97	24.26	24.12	24.14	24.26	24.25
GSM1900 EGPRS 3Tx	15.33	15.29	15.18	15.15	15.22	22.85	22.89	23	23.03	22.87
GSM1900 EGPRS 4Tx	14.79	14.72	14.72	14.76	14.6	22.23	22.29	22.22	22.24	22.39

Rear side – EUT Moving away (Release) from the Phantom WCDMA B5/B4/B2, LTE B2/B4/B5/B12/B13/B17/B41/B66

Distance	Distance to DUT Output power (dBm)									
	14	15	16	17	18	19	20	21	22	23
WCDMA Band 5	16.48	16.38	16.48	16.49	16.4	23.65	23.74	23.57	23.62	23.62
WCDMA Band 4	13.56	13.5	13.55	13.6	13.59	23.44	23.52	23.47	23.45	23.59
WCDMA Band 2	12.86	12.74	12.82	12.83	12.91	24.51	24.43	24.43	24.52	24.38
LTE Band 2	13.5	13.53	13.48	13.47	13.5	24.02	24.16	24.06	23.98	24.02
LTE Band 4	12.39	12.37	12.44	12.56	12.4	23.54	23.37	23.48	23.38	23.36
LTE Band 5	14.99	14.92	14.88	14.87	15.01	23.3	23.5	23.33	23.48	23.5
LTE Band 12	14.37	14.37	14.38	14.38	14.25	23.28	23.32	23.27	23.29	23.31
LTE Band 13	14.4	14.33	14.38	14.44	14.28	23.39	23.25	23.32	23.3	23.34
LTE Band 17	15.74	15.85	15.78	15.82	15.84	23.27	23.29	23.38	23.39	23.31
LTE Band 41	14.74	14.9	14.82	14.72	14.78	24.27	24.37	24.25	24.32	24.28
LTE Band 66	11.76	11.74	11.59	11.6	11.71	23.48	23.41	23.44	23.41	23.43

Based on the most conservative measured triggering distance of 17 mm, additional Body SAR measurements were required at 16 mm from Rear side for the above modes.

Top side – EUT Moving toward (trigger) to the Phantom GSM 850

Distance	Distance to DUT Output power (dBm)									
	23	22	21	20	19	18	17	16	15	14
GSM850 Voice	32.29	32.27	32.39	32.39	32.35	26.28	26.35	26.35	26.35	26.2
GSM850 GPRS 1Tx	32.37	32.48	32.31	32.48	32.49	26.27	26.32	26.3	26.3	26.22
GSM850 GPRS 2Tx	30.16	30.09	30.09	29.99	30.12	22.14	22.08	22.16	22.14	21.99
GSM850 GPRS 3Tx	28.18	28.14	28.13	28.21	28.29	20.92	20.92	20.91	20.96	21.01
GSM850 GPRS 4Tx	27.13	27.2	27.2	27.03	27.16	19.06	19.02	18.94	19.08	19.04
GSM850 EGPRS 1Tx	26.31	26.46	26.47	26.33	26.43	20.76	20.76	20.81	20.8	20.73
GSM850 EGPRS 2Tx	24.23	24.11	24.22	24.14	24.25	19.38	19.34	19.36	19.25	19.33
GSM850 EGPRS 3Tx	22.87	22.89	22.93	22.93	22.97	17.1	17.06	17.13	17.25	17.16
GSM850 EGPRS 4Tx	22.11	22.18	22.27	22.16	22.12	15.71	15.81	15.74	15.87	15.71

Top side – EUT Moving toward (trigger) to the Phantom GSM 1900

Distance	Distance to DUT Output power (dBm)									
	23	22	21	20	19	18	17	16	15	14
GSM1900 Voice	32.33	32.33	32.29	32.29	32.23	22.33	22.19	22.19	22.36	22.26
GSM1900 GPRS 1Tx	32.39	32.48	32.4	32.41	32.31	22.1	22.08	22.25	22.18	22.2
GSM1900 GPRS 2Tx	30.08	30.04	30.17	30.18	30.07	20.09	20.16	20.18	20.27	20.08
GSM1900 GPRS 3Tx	28.4	28.29	28.29	28.27	28.34	18.49	18.57	18.53	18.45	18.56
GSM1900 GPRS 4Tx	27.22	27.25	27.21	27.26	27.3	17.46	17.37	17.39	17.39	17.45
GSM1900 EGPRS 1Tx	26.52	26.43	26.47	26.53	26.35	18.59	18.51	18.52	18.53	18.48
GSM1900 EGPRS 2Tx	24.1	24.2	24.07	24.07	24.22	17.07	16.95	17.09	16.98	16.99
GSM1900 EGPRS 3Tx	23.04	22.92	22.91	22.91	22.99	15.17	15.23	15.27	15.29	15.21
GSM1900 EGPRS 4Tx	22.36	22.23	22.27	22.34	22.36	14.73	14.6	14.71	14.78	14.65

Top side – EUT Moving toward (trigger) to the Phantom WCDMA B5/B4/B2, LTE B2/B4/B5/B12/B13/B17/B41/B66

Distance	Distance to DUT Output power (dBm)									
	23	22	21	20	19	18	17	16	15	14
WCDMA Band 5	23.56	23.54	23.57	23.57	23.69	16.41	16.41	16.31	16.36	16.38
WCDMA Band 4	23.51	23.49	23.58	23.48	23.58	13.55	13.51	13.43	13.5	13.48
WCDMA Band 2	24.41	24.49	24.54	24.46	24.5	12.83	12.84	12.93	12.85	12.91
LTE Band 2	24.06	24.1	24.1	24.06	24.07	13.38	13.4	13.39	13.56	13.4
LTE Band 4	23.45	23.4	23.36	23.49	23.35	12.5	12.55	12.57	12.53	12.44
LTE Band 5	23.37	23.47	23.31	23.43	23.39	15.06	14.99	14.98	14.95	15.02
LTE Band 12	23.27	23.4	23.35	23.43	23.23	14.21	14.35	14.26	14.29	14.26
LTE Band 13	23.2	23.36	23.26	23.34	23.35	14.38	14.37	14.43	14.37	14.32
LTE Band 17	23.3	23.3	23.23	23.33	23.33	15.76	15.78	15.76	15.82	15.75
LTE Band 41	24.34	24.33	24.4	24.24	24.33	14.72	14.84	14.86	14.83	14.9
LTE Band 66	23.55	23.51	23.48	23.48	23.57	11.6	11.59	11.7	11.6	11.63

Top side – EUT Moving away (Release) from the Phantom GSM850

Distance	Distance to DUT Output power (dBm)									
	15	16	17	18	19	20	21	22	23	24
GSM850 Voice	26.3	26.32	26.31	26.25	26.38	32.25	32.38	32.31	32.42	32.31
GSM850 GPRS 1Tx	26.26	26.22	26.27	26.18	26.18	32.48	32.36	32.3	32.37	32.48
GSM850 GPRS 2Tx	22.14	22.11	22.04	22.1	21.98	30.07	30.05	29.98	30.1	29.97
GSM850 GPRS 3Tx	21.02	20.95	20.92	20.99	21.01	28.23	28.33	28.33	28.13	28.19
GSM850 GPRS 4Tx	19.03	19.01	19.02	19.07	19.04	27.01	27.03	27.15	27.13	27.09
GSM850 EGPRS 1Tx	20.68	20.78	20.84	20.73	20.64	26.37	26.37	26.3	26.33	26.34
GSM850 EGPRS 2Tx	19.21	19.37	19.31	19.26	19.23	24.12	24.23	24.25	24.13	24.21
GSM850 EGPRS 3Tx	17.05	17.08	17.08	17.2	17.23	23.03	22.95	22.96	22.95	23.04
GSM850 EGPRS 4Tx	15.75	15.84	15.89	15.73	15.78	22.13	22.11	22.21	22.13	22.12

Top side – EUT Moving away (Release) from the Phantom GSM 1900

Distance	Distance to DUT Output power (dBm)									
	15	16	17	18	19	20	21	22	23	24
GSM 1900 Voice	22.28	22.29	22.19	22.33	22.23	32.3	32.23	32.4	32.23	32.23
GSM 1900 GPRS 1Tx	22.2	22.27	22.14	22.19	22.28	32.28	32.35	32.29	32.39	32.28
GSM 1900 GPRS 2Tx	20.11	20.11	20.27	20.09	20.1	30.04	30.19	30.08	30.11	30.14
GSM 1900 GPRS 3Tx	18.59	18.59	18.52	18.48	18.48	28.3	28.36	28.28	28.39	28.24
GSM 1900 GPRS 4Tx	17.43	17.51	17.55	17.42	17.47	27.29	27.17	27.18	27.2	27.23
GSM 1900 EGPRS 1Tx	18.46	18.48	18.61	18.59	18.6	26.52	26.4	26.52	26.36	26.45
GSM 1900 EGPRS 2Tx	16.95	17.09	17.14	16.97	17.12	24.16	24.14	24.23	24.18	24.25
GSM 1900 EGPRS 3Tx	15.29	15.22	15.21	15.26	15.23	23.05	23.03	22.86	22.97	22.88
GSM 1900 EGPRS 4Tx	14.79	14.75	14.61	14.79	14.61	22.36	22.33	22.28	22.29	22.29

Top side – EUT Moving away (Release) from the Phantom WCDMA B5/B4/B2, LTE B2/B4/B5/B12/B13/B17/B41/B66

Distance	Distance to DUT Output power (dBm)									
	15	16	17	18	19	20	21	22	23	24
WCDMA Band 5	16.48	16.38	16.47	16.51	16.32	23.66	23.6	23.68	23.72	23.64
WCDMA Band 4	13.42	13.53	13.47	13.51	13.47	23.5	23.46	23.6	23.5	23.57
WCDMA Band 2	12.74	12.81	12.93	12.9	12.77	24.49	24.57	24.46	24.56	24.52
LTE Band 2	13.45	13.4	13.54	13.37	13.48	24.15	24.13	24	24.04	24.02
LTE Band 4	12.52	12.55	12.43	12.56	12.37	23.35	23.55	23.35	23.38	23.49
LTE Band 5	14.96	14.92	14.86	14.97	14.88	23.49	23.4	23.31	23.43	23.33
LTE Band 12	14.3	14.26	14.21	14.35	14.31	23.35	23.32	23.4	23.35	23.39
LTE Band 13	14.38	14.46	14.45	14.36	14.35	23.34	23.27	23.26	23.23	23.38
LTE Band 17	15.73	15.8	15.81	15.73	15.72	23.33	23.32	23.31	23.39	23.3
LTE Band 41	14.84	14.78	14.72	14.76	14.77	24.24	24.36	24.24	24.24	24.24
LTE Band 66	11.75	11.59	11.73	11.69	11.6	23.5	23.56	23.39	23.39	23.5

Based on the most conservative measured triggering distance of 18 mm, additional Body SAR measurements were required at 17 mm from Rear side for the above modes.

Right side – EUT Moving toward (trigger) to the Phantom GSM 850

Distance	Distance to DUT Output power (dBm)									
	12	11	10	9	8	7	6	5	4	3
GSM850 Voice	32.35	32.34	32.37	32.31	32.25	26.25	26.25	26.39	26.35	26.39
GSM850 GPRS 1Tx	32.4	32.42	32.3	32.29	32.38	26.25	26.19	26.33	26.34	26.24
GSM850 GPRS 2Tx	30.08	30.07	30.04	30.14	30.04	22.16	22.11	22.11	22	22.12
GSM850 GPRS 3Tx	28.15	28.25	28.23	28.21	28.19	20.91	21.02	21.05	21.06	20.98
GSM850 GPRS 4Tx	27.2	27.04	27.05	27.1	27.12	18.97	19.04	19.01	19.07	18.93
GSM850 EGPRS 1Tx	26.39	26.37	26.3	26.39	26.37	20.67	20.69	20.78	20.81	20.77
GSM850 EGPRS 2Tx	24.16	24.27	24.23	24.25	24.13	19.38	19.38	19.38	19.26	19.28
GSM850 EGPRS 3Tx	22.93	22.91	23.04	22.99	22.89	17.14	17.1	17.24	17.24	17.11
GSM850 EGPRS 4Tx	22.24	22.09	22.27	22.12	22.27	15.87	15.77	15.7	15.77	15.73

Right side – EUT Moving toward (trigger) to the Phantom GSM 1900

Distance	Distance to DUT Output power (dBm)									
	12	11	10	9	8	7	6	5	4	3
GSM1900 Voice	32.4	32.38	32.33	32.29	32.4	22.34	22.38	22.19	22.35	22.38
GSM1900 GPRS 1Tx	32.4	32.45	32.42	32.47	32.47	22.21	22.26	22.24	22.25	22.08
GSM1900 GPRS 2Tx	30.24	30.22	30.16	30.23	30.13	20.27	20.14	20.26	20.21	20.11
GSM1900 GPRS 3Tx	28.34	28.28	28.29	28.25	28.37	18.65	18.45	18.6	18.53	18.48
GSM1900 GPRS 4Tx	27.31	27.14	27.27	27.27	27.26	17.37	17.55	17.49	17.48	17.37
GSM1900 EGPRS 1Tx	26.4	26.39	26.54	26.39	26.46	18.57	18.5	18.51	18.53	18.6
GSM1900 EGPRS 2Tx	24.22	24.17	24.18	24.23	24.14	17.02	16.94	17.12	17.02	17.07
GSM1900 EGPRS 3Tx	22.92	22.89	22.85	22.85	22.86	15.28	15.24	15.31	15.32	15.33
GSM1900 EGPRS 4Tx	22.21	22.25	22.37	22.32	22.25	14.74	14.78	14.72	14.65	14.62

Right side – EUT Moving toward (trigger) to the Phantom WCDMA B5/B4/B2, LTE B2/B4/B5/B12/B13/B17/B41/B66

Distance	Distance to DUT Output power (dBm)									
	12	11	10	9	8	7	6	5	4	3
WCDMA Band 5	23.58	23.75	23.71	23.71	23.66	16.47	16.44	16.45	16.41	16.37
WCDMA Band 4	23.54	23.61	23.52	23.48	23.56	13.45	13.55	13.56	13.58	13.46
WCDMA Band 2	24.56	24.56	24.39	24.46	24.39	12.86	12.94	12.74	12.91	12.79
LTE Band 2	24.02	24.04	24.01	24.15	24.12	13.36	13.56	13.44	13.46	13.51
LTE Band 4	23.55	23.54	23.38	23.4	23.55	12.39	12.38	12.53	12.4	12.49
LTE Band 5	23.39	23.31	23.31	23.48	23.47	14.96	14.93	15.01	14.87	14.95
LTE Band 12	23.25	23.36	23.32	23.42	23.35	14.37	14.22	14.22	14.26	14.23
LTE Band 13	23.24	23.23	23.25	23.22	23.28	14.35	14.32	14.39	14.4	14.27
LTE Band 17	23.23	23.22	23.23	23.35	23.42	15.7	15.69	15.8	15.76	15.87
LTE Band 41	24.24	24.34	24.34	24.32	24.41	14.88	14.74	14.78	14.72	14.91
LTE Band 66	23.58	23.57	23.52	23.47	23.53	11.73	11.57	11.6	11.61	11.73

Right side – EUT Moving away (Release) from the Phantom GSM850

Distance	Distance to DUT Output power (dBm)									
	4	5	6	7	8	9	10	11	12	13
GSM850 Voice	26.22	26.4	26.2	26.25	26.29	32.26	32.3	32.28	32.25	32.3
GSM850 GPRS 1Tx	26.28	26.16	26.3	26.3	26.27	32.4	32.42	32.3	32.37	32.31
GSM850 GPRS 2Tx	22	22.16	21.99	22.09	22.06	30	30.06	30.09	30.06	30.13
GSM850 GPRS 3Tx	20.89	21.04	20.95	21.01	20.97	28.16	28.24	28.33	28.28	28.24
GSM850 GPRS 4Tx	18.96	19	18.95	18.96	19.03	27.06	27.05	27.07	27.02	27.19
GSM850 EGPRS 1Tx	20.82	20.81	20.82	20.76	20.67	26.44	26.39	26.46	26.47	26.45
GSM850 EGPRS 2Tx	19.32	19.2	19.26	19.31	19.32	24.19	24.11	24.19	24.25	24.27
GSM850 EGPRS 3Tx	17.09	17.13	17.24	17.08	17.1	23.04	23.01	22.89	23	22.87
GSM850 EGPRS 4Tx	15.86	15.76	15.87	15.82	15.7	22.11	22.11	22.24	22.23	22.09

Right side – EUT Moving away (Release) from the Phantom GSM 1900

Distance	Distance to DUT Output power (dBm)									
	4	5	6	7	8	9	10	11	12	13
GSM1900 Voice	22.22	22.2	22.32	22.39	22.21	32.26	32.24	32.41	32.41	32.23
GSM1900 GPRS 1Tx	22.15	22.18	22.28	22.22	22.17	32.36	32.45	32.34	32.31	32.33
GSM1900 GPRS 2Tx	20.23	20.26	20.27	20.26	20.26	30.08	30.07	30.04	30.21	30.11
GSM1900 GPRS 3Tx	18.48	18.46	18.57	18.57	18.57	28.35	28.37	28.35	28.36	28.22
GSM1900 GPRS 4Tx	17.37	17.4	17.54	17.44	17.4	27.2	27.13	27.23	27.28	27.31
GSM1900 EGPRS 1Tx	18.44	18.61	18.47	18.6	18.44	26.38	26.43	26.46	26.5	26.54
GSM1900 EGPRS 2Tx	16.96	17.09	17.1	16.99	17.13	24.25	24.21	24.21	24.18	24.07
GSM1900 EGPRS 3Tx	15.15	15.32	15.28	15.17	15.18	23	22.85	22.99	22.85	22.92
GSM1900 EGPRS 4Tx	14.77	14.78	14.76	14.7	14.64	22.28	22.34	22.24	22.38	22.25

Right side – EUT Moving away (Release) from the Phantom WCDMA B5/B4/B2, LTE B2/B4/B5/B12/B13/B17/B41/B66

Distance	Distance to DUT Output power (dBm)									
	4	5	6	7	8	9	10	11	12	13
WCDMA Band 5	16.47	16.48	16.34	16.35	16.35	23.56	23.56	23.59	23.73	23.74
WCDMA Band 4	13.54	13.55	13.56	13.54	13.46	23.49	23.55	23.61	23.5	23.41
WCDMA Band 2	12.87	12.81	12.85	12.85	12.78	24.4	24.38	24.56	24.46	24.45
LTE Band 2	13.38	13.48	13.56	13.44	13.38	24.12	24.06	24.06	24.01	23.98
LTE Band 4	12.56	12.51	12.49	12.53	12.53	23.49	23.48	23.53	23.4	23.38
LTE Band 5	14.94	14.86	14.93	14.92	15.05	23.49	23.3	23.34	23.48	23.34
LTE Band 12	14.27	14.33	14.23	14.25	14.24	23.24	23.29	23.4	23.26	23.35
LTE Band 13	14.34	14.29	14.3	14.46	14.46	23.24	23.19	23.31	23.36	23.35
LTE Band 17	15.86	15.73	15.76	15.85	15.82	23.23	23.29	23.4	23.27	23.22
LTE Band 41	14.89	14.78	14.89	14.85	14.77	24.44	24.24	24.36	24.41	24.36
LTE Band 66	11.59	11.74	11.74	11.56	11.73	23.44	23.39	23.38	23.58	23.42

Based on the most conservative measured triggering distance of 7 mm, additional Body SAR measurements were required at 6 mm from Rear side for the above modes.

Right Corner side – EUT Moving toward (trigger) to the Phantom GSM 850

Distance	Distance to DUT Output power (dBm)									
	12	11	10	9	8	7	6	5	4	3
GSM850 Voice	32.32	32.35	32.34	32.42	32.36	26.32	26.38	26.36	26.25	26.28
GSM850 GPRS 1Tx	32.41	32.42	32.29	32.44	32.44	26.33	26.28	26.23	26.25	26.19
GSM850 GPRS 2Tx	30.02	30.07	30.03	30	30.03	21.99	22.05	22.09	22.13	22.01
GSM850 GPRS 3Tx	28.17	28.23	28.32	28.2	28.17	21.08	21.01	20.92	20.89	20.9
GSM850 GPRS 4Tx	27.1	27.03	27.17	27.12	27.18	19.07	18.97	19.02	19.01	19.02
GSM850 EGPRS 1Tx	26.41	26.36	26.47	26.33	26.32	20.77	20.77	20.7	20.78	20.74
GSM850 EGPRS 2Tx	24.18	24.15	24.21	24.18	24.23	19.39	19.29	19.25	19.34	19.35
GSM850 EGPRS 3Tx	22.94	22.89	22.92	22.98	22.95	17.12	17.08	17.09	17.23	17.08
GSM850 EGPRS 4Tx	22.27	22.26	22.14	22.11	22.07	15.71	15.88	15.75	15.8	15.74

Right Corner side – EUT Moving toward (trigger) to the Phantom GSM 1900

Distance	Distance to DUT Output power (dBm)									
	12	11	10	9	8	7	6	5	4	3
GSM1900 Voice	32.4	32.22	32.28	32.23	32.25	22.23	22.3	22.24	22.2	22.38
GSM1900 GPRS 1Tx	32.47	32.35	32.42	32.46	32.35	22.24	22.1	22.1	22.28	22.11
GSM1900 GPRS 2Tx	30.11	30.18	30.18	30.24	30.11	20.1	20.17	20.08	20.19	20.12
GSM1900 GPRS 3Tx	28.39	28.37	28.28	28.26	28.23	18.58	18.56	18.55	18.5	18.58
GSM1900 GPRS 4Tx	27.3	27.15	27.15	27.18	27.14	17.47	17.41	17.39	17.38	17.52
GSM1900 EGPRS 1Tx	26.34	26.47	26.39	26.39	26.5	18.51	18.45	18.46	18.54	18.5
GSM1900 EGPRS 2Tx	24.11	24.14	24.07	24.11	24.08	17.06	17.04	17.01	16.98	16.96
GSM1900 EGPRS 3Tx	23.02	22.91	23.03	22.96	22.92	15.31	15.19	15.32	15.15	15.14
GSM1900 EGPRS 4Tx	22.28	22.28	22.33	22.31	22.23	14.66	14.59	14.71	14.64	14.77

Right Corner side – EUT Moving toward (trigger) to the Phantom WCDMA B5/B4/B2, LTE B2/B4/B5/B12/B13/B17/B41/B66

Distance	Distance to DUT Output power (dBm)									
	12	11	10	9	8	7	6	5	4	3
WCDMA Band 5	23.61	23.68	23.61	23.65	23.59	16.35	16.39	16.46	16.32	16.41
WCDMA Band 4	23.45	23.59	23.57	23.55	23.59	13.59	13.55	13.56	13.47	13.59
WCDMA Band 2	24.42	24.55	24.41	24.51	24.48	12.9	12.83	12.83	12.93	12.94
LTE Band 2	24.03	24.11	23.98	24.06	24.1	13.37	13.54	13.44	13.42	13.48
LTE Band 4	23.43	23.44	23.54	23.42	23.55	12.5	12.5	12.54	12.41	12.38
LTE Band 5	23.46	23.39	23.3	23.44	23.37	14.9	15	14.87	15.06	15.02
LTE Band 12	23.27	23.29	23.41	23.29	23.37	14.32	14.39	14.22	14.38	14.23
LTE Band 13	23.24	23.33	23.3	23.36	23.2	14.34	14.43	14.45	14.37	14.29
LTE Band 17	23.35	23.35	23.26	23.29	23.33	15.68	15.81	15.87	15.84	15.71
LTE Band 41	24.33	24.42	24.28	24.35	24.26	14.89	14.71	14.86	14.83	14.85
LTE Band 66	23.39	23.49	23.48	23.45	23.52	11.73	11.66	11.56	11.55	11.55

Right Corner side – EUT Moving away (Release) from the Phantom GSM850

Distance	Distance to DUT Output power (dBm)									
	5	6	7	8	9	10	11	12	13	14
GSM850 Voice	26.2	26.25	26.37	26.25	26.29	32.34	32.41	32.26	32.29	32.28
GSM850 GPRS 1Tx	26.25	26.25	26.26	26.2	26.16	32.37	32.42	32.39	32.34	32.41
GSM850 GPRS 2Tx	22.01	22.04	22.1	22.02	22	30.01	30.16	30.01	30.09	29.98
GSM850 GPRS 3Tx	20.97	20.95	21.04	20.95	20.9	28.31	28.16	28.27	28.33	28.27
GSM850 GPRS 4Tx	18.9	19.01	18.98	19.03	19.06	27.03	27.07	27.11	27.14	27.17
GSM850 EGPRS 1Tx	20.74	20.8	20.81	20.65	20.77	26.38	26.29	26.42	26.46	26.28
GSM850 EGPRS 2Tx	19.27	19.19	19.31	19.24	19.29	24.21	24.21	24.2	24.22	24.17
GSM850 EGPRS 3Tx	17.15	17.06	17.11	17.05	17.23	22.93	22.88	22.87	22.93	23.01
GSM850 EGPRS 4Tx	15.69	15.74	15.81	15.74	15.88	22.17	22.12	22.14	22.18	22.21

Right Corner side – EUT Moving away (Release) from the Phantom GSM 1900

Distance	Distance to DUT Output power (dBm)									
	5	6	7	8	9	10	11	12	13	14
GSM1900 Voice	22.38	22.3	22.25	22.22	22.29	32.22	32.23	32.22	32.24	32.29
GSM1900 GPRS 1Tx	22.13	22.08	22.15	22.28	22.18	32.4	32.42	32.35	32.47	32.46
GSM1900 GPRS 2Tx	20.23	20.27	20.2	20.26	20.16	30.22	30.24	30.23	30.19	30.09
GSM1900 GPRS 3Tx	18.57	18.46	18.55	18.52	18.51	28.4	28.38	28.24	28.39	28.4
GSM1900 GPRS 4Tx	17.45	17.48	17.55	17.45	17.44	27.28	27.26	27.16	27.23	27.27
GSM1900 EGPRS 1Tx	18.47	18.63	18.57	18.61	18.5	26.43	26.45	26.48	26.39	26.34
GSM1900 EGPRS 2Tx	16.99	17.09	17.05	17	16.96	24.13	24.18	24.09	24.2	24.17
GSM1900 EGPRS 3Tx	15.29	15.32	15.29	15.28	15.22	22.97	23.01	22.96	23.05	23.04
GSM1900 EGPRS 4Tx	14.73	14.6	14.77	14.75	14.75	22.21	22.26	22.24	22.4	22.23

Right Corner side – EUT Moving away (Release) from the Phantom WCDMA B5/B4/B2, LTE B2/B4/B5/B12/B13/B17/B41/B66

Distance	Distance to DUT Output power (dBm)									
	5	6	7	8	9	10	11	12	13	14
WCDMA Band 5	16.37	16.33	16.32	16.36	16.36	23.58	23.63	23.74	23.65	23.62
WCDMA Band 4	13.53	13.41	13.57	13.46	13.59	23.5	23.54	23.53	23.54	23.41
WCDMA Band 2	12.85	12.74	12.91	12.86	12.84	24.5	24.53	24.49	24.38	24.44
LTE Band 2	13.47	13.52	13.49	13.44	13.36	24.14	24.14	23.98	24.02	24.02
LTE Band 4	12.51	12.42	12.55	12.55	12.48	23.43	23.54	23.46	23.49	23.43
LTE Band 5	14.99	14.99	15.01	15.03	15.04	23.48	23.41	23.5	23.33	23.43
LTE Band 12	14.3	14.2	14.32	14.27	14.23	23.29	23.28	23.29	23.36	23.32
LTE Band 13	14.39	14.28	14.39	14.42	14.35	23.34	23.39	23.23	23.2	23.24
LTE Band 17	15.7	15.85	15.71	15.72	15.78	23.39	23.41	23.24	23.38	23.25
LTE Band 41	14.86	14.71	14.81	14.87	14.83	24.36	24.32	24.27	24.37	24.27
LTE Band 66	11.6	11.67	11.55	11.62	11.69	23.43	23.44	23.45	23.5	23.52

Based on the most conservative measured triggering distance of 7 mm, additional Body SAR measurements were required at 6 mm from Rear side for the above modes.

1.3 Proximity Sensor Coverage for SAR measurements

(KDB 616217 D04v01r02 §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.

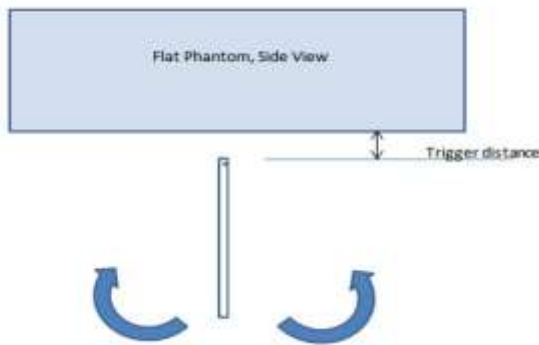
1.4 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02 §6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Top/Left side parallel to the base of the flat phantom for each band.

The EUT was rotated about Bottom side for angles up to $\pm 45^\circ$. 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 $\pm 45^\circ$.

Proximity sensor tilt angle assessment (Bottom side) KDB 616217 §6.4



Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Top side)

Band (MHz)	Minimum distance at which power reduction was maintained over-45°	Power reduction status										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
GSM850 Voice	18 mm	26.4	26.36	26.22	26.29	26.27	26.38	26.33	26.25	26.24	26.22	26.25
GSM850 GPRS 1Tx	18 mm	26.34	26.24	26.17	26.15	26.24	26.15	26.21	26.27	26.3	26.18	26.24
GSM850 GPRS 2Tx	18 mm	22.04	22.14	22.12	22.06	22.11	21.99	22.01	21.98	22.12	22.03	22.16
GSM850 GPRS 3Tx	18 mm	20.97	21.04	20.94	21.08	21.05	20.91	20.95	21.05	20.97	20.93	20.96
GSM850 GPRS 4Tx	18 mm	19.01	19.03	19.06	19.06	19.06	18.94	19	19.02	18.99	19	19.01
GSM850 EGPRS 1Tx	18 mm	20.83	20.66	20.68	20.82	20.83	20.82	20.78	20.78	20.77	20.83	20.64
GSM850 EGPRS 2Tx	18 mm	19.3	19.33	19.2	19.24	19.28	19.29	19.26	19.21	19.38	19.39	19.28
GSM850 EGPRS 3Tx	18 mm	17.22	17.06	17.2	17.08	17.06	17.17	17.14	17.08	17.19	17.25	17.1
GSM850 EGPRS 4Tx	18 mm	15.83	15.84	15.87	15.69	15.77	15.74	15.87	15.78	15.69	15.79	15.81

Band (MHz)	Minimum distance at which power reduction was maintained over- 45°	Power reduction status										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
GSM1900 Voice	18 mm	22.38	22.35	22.43	22.37	22.33	22.35	22.39	22.31	22.41	22.41	22.42
GSM1900 GPRS 1Tx	18 mm	22.16	22.32	22.35	22.26	22.17	22.31	22.16	22.28	22.17	22.28	22.23
GSM1900 GPRS 2Tx	18 mm	20.3	20.25	20.31	20.26	20.26	20.33	20.35	20.2	20.3	20.24	20.26
GSM1900 GPRS 3Tx	18 mm	18.56	18.53	18.46	18.48	18.62	18.5	18.42	18.56	18.48	18.56	18.53
GSM1900 GPRS 4Tx	18 mm	17.36	17.4	17.41	17.34	17.43	17.41	17.31	17.33	17.48	17.39	17.43
GSM1900 EGPRS 1Tx	18 mm	18.54	18.51	18.63	18.56	18.59	18.5	18.54	18.66	18.59	18.47	18.61
GSM1900 EGPRS 2Tx	18 mm	17.05	17.01	16.95	16.98	16.94	16.96	17.09	17	17.03	17.05	16.99
GSM1900 EGPRS 3Tx	18 mm	15.26	15.24	15.22	15.22	15.32	15.26	15.24	15.19	15.25	15.23	15.37
GSM1900 EGPRS 4Tx	18 mm	14.73	14.7	14.78	14.79	14.71	14.67	14.7	14.72	14.78	14.65	14.64

Band (MHz)	Minimum distance at which power reduction was maintained over- 45°	Power reduction status										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
WCDMA Band 5	18 mm	16.45	16.51	16.31	16.38	16.34	16.41	16.48	16.49	16.45	16.48	16.39
WCDMA Band 4	18 mm	13.54	13.6	13.53	13.55	13.55	13.57	13.57	13.51	13.52	13.6	13.53
WCDMA Band 2	18 mm	12.81	12.84	12.79	12.8	12.82	12.83	12.75	12.81	12.87	12.75	12.78
LTE Band 2	18 mm	13.42	13.42	13.49	13.46	13.38	13.42	13.45	13.43	13.51	13.43	13.36
LTE Band 4	18 mm	12.42	12.45	12.38	12.57	12.56	12.47	12.55	12.47	12.5	12.48	12.52
LTE Band 5	18 mm	15.06	14.94	14.97	14.88	14.93	15.03	14.94	15.04	14.96	14.95	14.96
LTE Band 12	18 mm	14.25	14.31	14.23	14.26	14.24	14.36	14.31	14.3	14.19	14.28	14.39
LTE Band 13	18 mm	14.4	14.36	14.44	14.35	14.31	14.29	14.43	14.4	14.31	14.45	14.37
LTE Band 17	18 mm	15.76	15.83	15.77	15.74	15.85	15.79	15.82	15.71	15.74	15.74	15.71
LTE Band 41	18 mm	14.8	14.79	14.82	14.87	14.87	14.85	14.84	14.75	14.72	14.88	14.9
LTE Band 66	18 mm	11.65	11.63	11.64	11.7	11.62	11.66	11.76	11.71	11.66	11.58	11.68

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Right side)

Band (MHz)	Minimum distance at which power reduction was maintained over- 45°	Power reduction status										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
GSM850 Voice	7 mm	26.4	26.2	26.21	26.32	26.24	26.28	26.38	26.22	26.31	26.32	26.26
GSM850 GPRS 1Tx	7 mm	26.25	26.18	26.33	26.21	26.33	26.17	26.34	26.27	26.14	26.29	26.34
GSM850 GPRS 2Tx	7 mm	22.08	21.98	22.16	22.1	22.09	21.98	22.11	21.99	22.16	22.04	22.14
GSM850 GPRS 3Tx	7 mm	20.88	20.88	20.96	21.03	20.89	20.88	21.07	20.98	20.99	20.94	21.05
GSM850 GPRS 4Tx	7 mm	19	18.94	18.94	19.05	19.01	19.04	19	19.04	18.99	19.03	19.1
GSM850 EGPRS 1Tx	7 mm	20.76	20.67	20.76	20.71	20.74	20.68	20.69	20.83	20.8	20.69	20.84
GSM850 EGPRS 2Tx	7 mm	19.34	19.22	19.26	19.35	19.3	19.39	19.3	19.3	19.37	19.34	19.38
GSM850 EGPRS 3Tx	7 mm	17.2	17.24	17.25	17.14	17.14	17.24	17.12	17.08	17.22	17.06	17.05
GSM850 EGPRS 4Tx	7 mm	15.8	15.8	15.88	15.82	15.82	15.75	15.84	15.83	15.77	15.74	15.74

Band (MHz)	Minimum distance at which power reduction was maintained over- 45°	Power reduction status										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
GSM1900 Voice	7 mm	22.35	22.37	22.28	22.28	22.27	22.29	22.23	22.29	22.33	22.41	22.23
GSM1900 GPRS 1Tx	7 mm	22.19	22.24	22.29	22.35	22.25	22.17	22.21	22.26	22.28	22.33	22.22
GSM1900 GPRS 2Tx	7 mm	20.33	20.27	20.27	20.26	20.32	20.36	20.2	20.36	20.3	20.28	20.25
GSM1900 GPRS 3Tx	7 mm	18.47	18.58	18.44	18.43	18.62	18.52	18.58	18.49	18.58	18.5	18.53
GSM1900 GPRS 4Tx	7 mm	17.41	17.34	17.46	17.36	17.39	17.34	17.31	17.31	17.29	17.31	17.42
GSM1900 EGPRS 1Tx	7 mm	18.48	18.59	18.53	18.56	18.58	18.47	18.58	18.63	18.59	18.56	18.51
GSM1900 EGPRS 2Tx	7 mm	17.05	17	17.08	17.11	16.95	17.04	16.98	17	17.01	17.04	16.98
GSM1900 EGPRS 3Tx	7 mm	15.36	15.28	15.34	15.32	15.3	15.21	15.2	15.39	15.33	15.21	15.3
GSM1900 EGPRS 4Tx	7 mm	14.74	14.66	14.67	14.63	14.77	14.72	14.81	14.74	14.67	14.77	14.66

Band (MHz)	Minimum distance at which power reduction was maintained over- 45°	Power reduction status										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
WCDMA Band 5	7 mm	16.46	16.35	16.37	16.46	16.34	16.36	16.46	16.41	16.36	16.43	16.47
WCDMA Band 4	7 mm	13.46	13.59	13.5	13.44	13.4	13.56	13.5	13.53	13.52	13.4	13.55
WCDMA Band 2	7 mm	12.94	12.86	12.81	12.9	12.79	12.79	12.86	12.78	12.91	12.9	12.9
LTE Band 2	7 mm	13.43	13.54	13.52	13.51	13.37	13.51	13.5	13.42	13.56	13.45	13.55
LTE Band 4	7 mm	12.49	12.53	12.46	12.46	12.56	12.51	12.43	12.46	12.54	12.51	12.57
LTE Band 5	7 mm	14.92	14.92	14.99	15.02	14.98	14.87	14.91	14.92	14.87	14.97	14.87
LTE Band 12	7 mm	14.29	14.24	14.25	14.37	14.23	14.38	14.23	14.22	14.19	14.2	14.39
LTE Band 13	7 mm	14.46	14.26	14.36	14.28	14.39	14.45	14.44	14.29	14.37	14.4	14.43
LTE Band 17	7 mm	15.68	15.82	15.86	15.68	15.79	15.74	15.86	15.87	15.83	15.76	15.81
LTE Band 41	7 mm	14.76	14.79	14.86	14.75	14.9	14.8	14.88	14.76	14.77	14.71	14.91
LTE Band 66	7 mm	11.56	11.75	11.7	11.62	11.57	11.75	11.73	11.57	11.6	11.75	11.64

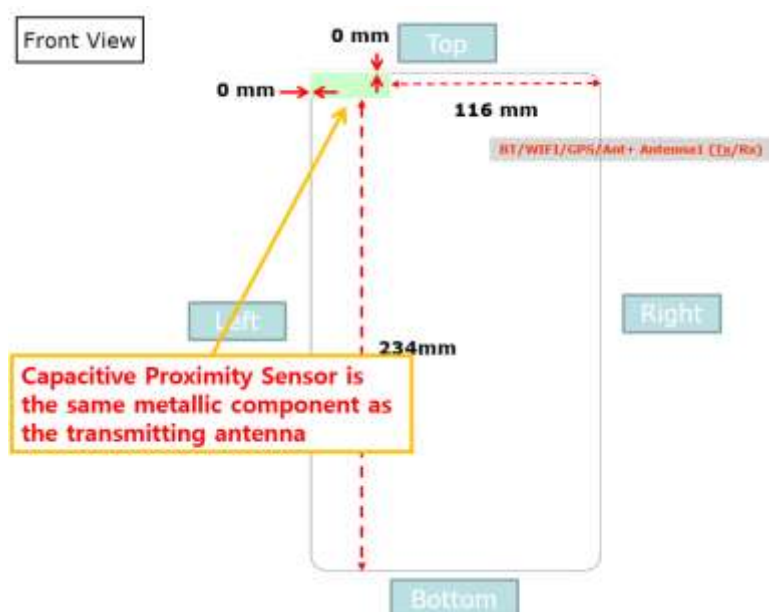
1.5 Resulting test positions for Tablet SAR measurements

Wireless technologies	Position	§6.2 Triggering Distance	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Tablet SAR
WWAN (GSM850/1900/ WCDMA B2/B4/B5 LTE B2/B4/B5/B12/B13/ B17/B41/B66)	Rear	17	N/A	N/A	16
	Top Side	18	N/A	18	17
	Right Side	7	N/A	7	6
	Right Corner	7	N/A	N/A	6

Note: FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in proximity use conditions.

2. Power Reduction Verification for WLAN Antenna

This device utilizes a power reduction mechanism for WLAN Antenna wireless modes for SAR compliance under some conditions when the device is being used in close proximity to the user's hand. All SAR evaluations for this device were performed at the maximum allowed output Power when Proximity Sensor is activated. FCC KDB Publication 616217D04v01r02 section 6 was used as a guideline for selection SAR test distances for this device when being used in proximity sensor used conditions. For detailed measurement conducted power results, please refer to the Section .9 of SAR Report.



2.1 Power Verification Procedure for WLAN Ant.

The Power verification was performed according to the following procedure:

Power Reduction Verification for WLAN mode

Mechanism(s)	Mode/Band	Conducted Power (dBm)	
		Un-triggered(Max Power)	Triggered (Reduced Power)
Proximity sensor On	2.4 GHz 802.11b	19.63	12.65
Proximity sensor On	2.4 GHz 802.11g	18.64	12.76
Proximity sensor On	2.4GHz 802.11n(2ch – 11ch)	18.50	12.14
Proximity sensor On	5 GHz 802.11a	17.29	8.96
Proximity sensor On	5 GHz 802.11n 20MHz	17.5	8.79
Proximity sensor On	5 GHz 802.11n 40MHz	16.81	8.52
Proximity sensor On	5 GHz 802.11ac 20MHz	17.12	8.46
Proximity sensor On	5 GHz 802.11ac 40MHz	16.48	8.77
Proximity sensor On	5 GHz 802.11ac 80MHz	15.3	9.10

2.2 Procedures for determining proximity sensor triggering distances

(KDB 616217 D04v01r02 §6.2)

The distance verification procedure was performed according to the following procedure:

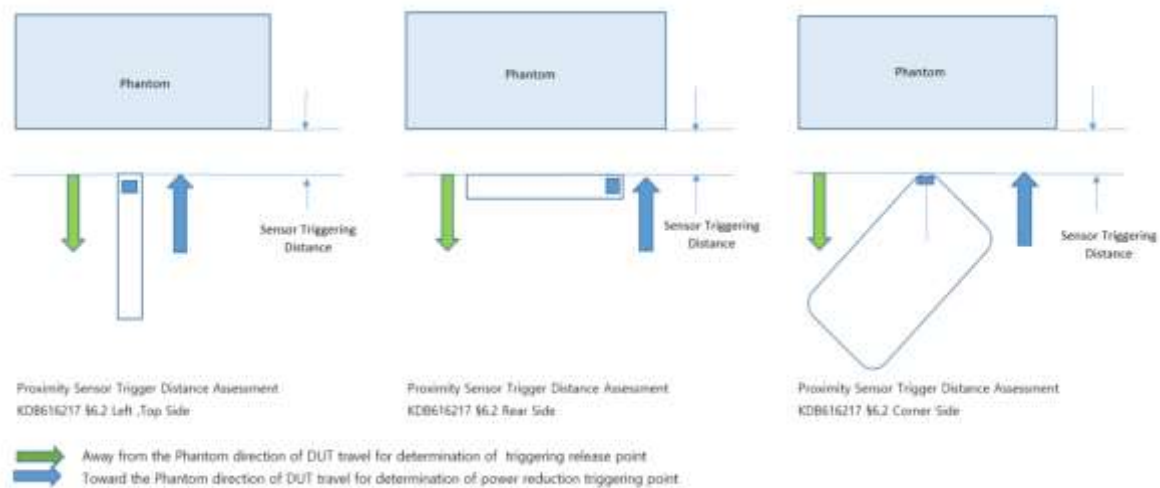
A base station simulator was used to establish an RF connection and to monitor the power levels. The device being tested was placed below the relevant section of the phantom with the relevant side or edge of the device facing toward the phantom.

The device was moved toward and away from the phantom to determine the distance at which the mechanism triggers and the output power is reduced, per KDB Publication 616217 D04v01r02 .Each applicable test position was evaluated. The distance were conformed to be the same or larger (more conservative) than the minimum distances provided by the manufacturer.

Step 1 and 2 were repeated for the relevant modes, as appropriate

Steps 1 through 3 were repeated for all distance-based power reduction mechanisms.

For detailed measurement conducted power results, please refer to the Section .9.



Tissue simulating Liquid	Trigger distance - Rear		Trigger distance - Top		Trigger distance - Left Side		Trigger distance - Left corner	
	Moving toward phantom	Moving away from phantom	Moving toward phantom	Moving away from phantom	Moving toward phantom	Moving away from phantom	Moving toward phantom	Moving away from phantom
2 450 MHz Muscle	9	15	10	15	7	8	7	9
5 000 MHz Muscle	9	15	10	15	7	8	7	9

Distance Measurement verification for Proximity sensor

Rear side – EUT Moving toward (trigger) to the Phantom

Distance	Distance to DUT Output power (dBm)									
	14	13	12	11	10	9	8	7	6	5
2.4GHz 802.11b	19.62	19.54	19.58	19.56	19.58	12.67	12.55	12.58	12.75	12.61
2.4GHz 802.11g	18.57	18.69	18.74	18.6	18.65	12.84	12.81	12.75	12.85	12.74
2.4GHz 802.11n(2ch – 11ch)	18.58	18.47	18.5	18.48	18.57	12.15	12.15	12.22	12.23	12.09
5GHz 802.11a	17.27	17.36	17.37	17.23	17.24	9.04	8.97	9	8.9	8.98
5GHz 802.11n 20MHz	17.43	17.56	17.58	17.49	17.54	8.8	8.79	8.78	8.87	8.84
5GHz 802.11n 40MHz	16.76	16.75	16.76	16.84	16.87	8.43	8.47	8.6	8.55	8.57
5GHz 802.11ac 20MHz	17.13	17.05	17.18	17.17	17.21	8.48	8.36	8.47	8.38	8.41
5GHz 802.11ac 40MHz	16.43	16.42	16.58	16.58	16.49	8.69	8.78	8.74	8.76	8.82
5GHz 802.11ac 80MHz	15.36	15.23	15.34	15.25	15.31	9.15	9.16	9.14	9	9.18

Rear side – EUT Moving away (Release) from the Phantom

Distance	Distance to DUT Output power (dBm)									
	11	12	13	14	15	16	17	18	19	20
2.4GHz 802.11b	12.75	12.7	12.67	12.59	12.69	19.67	19.55	19.56	19.59	19.6
2.4GHz 802.11g	12.82	12.73	12.73	12.8	12.79	18.66	18.58	18.65	18.74	18.73
2.4GHz 802.11n(2ch – 11ch)	12.19	12.12	12.17	12.08	12.14	18.47	18.55	18.49	18.58	18.48
5GHz 802.11a	8.87	8.96	9.02	8.86	8.95	17.39	17.37	17.39	17.39	17.25
5GHz 802.11n 20MHz	8.81	8.79	8.87	8.87	8.89	17.54	17.4	17.59	17.52	17.43
5GHz 802.11n 40MHz	8.5	8.56	8.61	8.62	8.52	16.87	16.82	16.9	16.77	16.81
5GHz 802.11ac 20MHz	8.53	8.55	8.53	8.45	8.38	17.1	17.02	17.06	17.12	17.1
5GHz 802.11ac 40MHz	8.7	8.69	8.67	8.67	8.73	16.56	16.55	16.44	16.42	16.4
5GHz 802.11ac 80MHz	9.06	9	9.09	9.16	9.19	15.34	15.25	15.23	15.25	15.35

Based on the most conservative measured triggering distance of 9 mm, additional Body SAR measurements were required at 8 mm from Rear side for the above modes.

Top side – EUT Moving toward (trigger) to the Phantom

Distance	Distance to DUT Output power (dBm)									
	15	14	13	12	11	10	9	8	7	6
2.4GHz 802.11b	19.55	19.59	19.61	19.67	19.69	12.74	12.68	12.65	12.56	12.67
2.4GHz 802.11g	18.59	18.54	18.7	18.74	18.57	12.81	12.83	12.7	12.78	12.82
2.4GHz 802.11n(2ch – 11ch)	18.53	18.41	18.51	18.47	18.43	12.18	12.11	12.16	12.15	12.21
5GHz 802.11a	17.34	17.19	17.26	17.24	17.26	8.98	8.92	8.93	8.96	8.98
5GHz 802.11n 20MHz	17.53	17.55	17.54	17.53	17.45	8.72	8.73	8.87	8.77	8.77
5GHz 802.11n 40MHz	16.9	16.79	16.84	16.77	16.75	8.46	8.59	8.6	8.56	8.57
5GHz 802.11ac 20MHz	17.02	17.19	17.19	17.22	17.06	8.36	8.46	8.41	8.56	8.39
5GHz 802.11ac 40MHz	16.41	16.45	16.52	16.38	16.38	8.8	8.71	8.76	8.86	8.7
5GHz 802.11ac 80MHz	15.3	15.34	15.35	15.2	15.29	9.2	9.04	9.06	9.15	9.04

Top side – EUT Moving away (Release) from the Phantom

Distance	Distance to DUT Output power (dBm)									
	11	12	13	14	15	16	17	18	19	20
2.4GHz 802.11b	12.72	12.61	12.73	12.65	12.58	19.58	19.63	19.66	19.67	19.61
2.4GHz 802.11g	12.86	12.69	12.66	12.76	12.66	18.69	18.65	18.64	18.72	18.64
2.4GHz 802.11n(2ch – 11ch)	12.1	12.12	12.15	12.18	12.24	18.52	18.47	18.4	18.6	18.57
5GHz 802.11a	8.91	8.98	9.05	8.93	9.01	17.28	17.2	17.22	17.24	17.33
5GHz 802.11n 20MHz	8.73	8.72	8.79	8.77	8.86	17.44	17.41	17.6	17.54	17.5
5GHz 802.11n 40MHz	8.57	8.55	8.6	8.55	8.61	16.9	16.8	16.82	16.89	16.8
5GHz 802.11ac 20MHz	8.36	8.36	8.36	8.39	8.38	17.1	17.22	17.02	17.15	17.22
5GHz 802.11ac 40MHz	8.81	8.8	8.71	8.78	8.77	16.49	16.44	16.38	16.5	16.53
5GHz 802.11ac 80MHz	9	9.1	9.01	9	9.19	15.27	15.32	15.23	15.27	15.37

Based on the most conservative measured triggering distance of 10 mm, additional Body SAR measurements were required at 9 mm from Rear side for the above modes.

Left side – EUT Moving toward (trigger) to the Phantom

Distance	Distance to DUT Output power (dBm)									
	12	11	10	9	8	7	6	5	4	3
2.4GHz 802.11b	19.7	19.71	19.59	19.71	19.58	12.75	12.69	12.75	12.68	12.6
2.4GHz 802.11g	18.55	18.57	18.62	18.71	18.66	12.7	12.68	12.75	12.75	12.79
2.4GHz 802.11n(2ch – 11ch)	18.45	18.57	18.44	18.59	18.58	12.21	12.2	12.21	12.18	12.04
5GHz 802.11a	17.36	17.24	17.25	17.39	17.32	8.98	9	8.87	8.94	9.05
5GHz 802.11n 20MHz	17.55	17.42	17.54	17.46	17.4	8.7	8.75	8.77	8.69	8.84
5GHz 802.11n 40MHz	16.74	16.87	16.78	16.78	16.84	8.54	8.53	8.59	8.6	8.45
5GHz 802.11ac 20MHz	17.13	17.13	17.2	17.15	17.13	8.36	8.39	8.52	8.52	8.4
5GHz 802.11ac 40MHz	16.46	16.53	16.55	16.55	16.43	8.8	8.85	8.75	8.8	8.71
5GHz 802.11ac 80MHz	15.37	15.38	15.35	15.2	15.34	9.12	9.13	9.2	9.17	9.18

Left side – EUT Moving away (Release) from the Phantom

Distance	Distance to DUT Output power (dBm)									
	4	5	6	7	8	9	10	11	12	13
2.4GHz 802.11b	12.75	12.7	12.71	12.63	12.65	19.61	19.55	19.63	19.69	19.62
2.4GHz 802.11g	12.68	12.79	12.78	12.76	12.73	18.65	18.56	18.65	18.56	18.65
2.4GHz 802.11n(2ch – 11ch)	12.15	12.17	12.12	12.05	12.08	18.59	18.41	18.49	18.59	18.55
5GHz 802.11a	8.87	9.06	9	9.01	9	17.32	17.31	17.34	17.3	17.3
5GHz 802.11n 20MHz	8.86	8.89	8.73	8.87	8.89	17.57	17.47	17.46	17.59	17.57
5GHz 802.11n 40MHz	8.5	8.6	8.57	8.5	8.47	16.78	16.85	16.75	16.9	16.91
5GHz 802.11ac 20MHz	8.45	8.36	8.44	8.5	8.43	17.07	17.02	17.04	17.18	17.22
5GHz 802.11ac 40MHz	8.67	8.84	8.69	8.71	8.83	16.43	16.38	16.41	16.54	16.38
5GHz 802.11ac 80MHz	9.12	9.07	9.19	9.1	9.1	15.36	15.36	15.23	15.25	15.25

Based on the most conservative measured triggering distance of 7 mm, additional Body SAR measurements were required at 6 mm from Rear side for the above modes.

Left Corner side – EUT Moving toward (trigger) to the Phantom

Distance	Distance to DUT Output power (dBm)									
	12	11	10	9	8	7	6	5	4	3
2.4GHz 802.11b	19.6	19.54	19.55	19.57	19.69	12.58	12.58	12.6	12.61	12.55
2.4GHz 802.11g	18.59	18.63	18.64	18.55	18.58	12.68	12.76	12.78	12.79	12.72
2.4GHz 802.11n(2ch – 11ch)	18.44	18.54	18.47	18.57	18.56	12.04	12.09	12.23	12.09	12.19
5GHz 802.11a	17.38	17.35	17.29	17.24	17.32	8.99	8.9	9.05	8.9	8.9
5GHz 802.11n 20MHz	17.44	17.47	17.59	17.52	17.47	8.74	8.87	8.78	8.82	8.74
5GHz 802.11n 40MHz	16.87	16.74	16.85	16.82	16.9	8.6	8.5	8.58	8.57	8.6
5GHz 802.11ac 20MHz	17.21	17.03	17.17	17.11	17.17	8.55	8.44	8.49	8.56	8.46
5GHz 802.11ac 40MHz	16.54	16.42	16.5	16.42	16.48	8.67	8.86	8.83	8.77	8.85
5GHz 802.11ac 80MHz	15.34	15.21	15.35	15.31	15.35	9.18	9.17	9.03	9.16	9.08

Left Corner side – EUT Moving away (Release) from the Phantom

Distance	Distance to DUT Output power (dBm)									
	5	6	7	8	9	10	11	12	13	14
2.4GHz 802.11b	12.55	12.64	12.61	12.69	12.59	19.55	19.62	19.6	19.56	19.59
2.4GHz 802.11g	12.72	12.83	12.7	12.84	12.67	18.62	18.73	18.7	18.64	18.64
2.4GHz 802.11n (2ch–11ch)	12.04	12.04	12.18	12.15	12.16	18.42	18.4	18.43	18.42	18.52
5GHz 802.11a	8.97	9.02	9.06	8.92	9.04	17.33	17.19	17.28	17.21	17.32
5GHz 802.11n 20MHz	8.87	8.73	8.69	8.88	8.7	17.45	17.43	17.41	17.41	17.43
5GHz 802.11n 40MHz	8.55	8.56	8.62	8.59	8.42	16.77	16.77	16.86	16.8	16.85
5GHz 802.11ac 20MHz	8.53	8.36	8.37	8.54	8.4	17.03	17.03	17.03	17.22	17.11
5GHz 802.11ac 40MHz	8.81	8.77	8.67	8.77	8.67	16.46	16.55	16.39	16.47	16.54
5GHz 802.11ac 80MHz	9.05	9.18	9.06	9.01	9.05	15.39	15.31	15.37	15.24	15.32

Based on the most conservative measured triggering distance of 7 mm, additional Body SAR measurements were required at 6 mm from Rear side for the above modes.

2.3 Proximity Sensor Coverage for SAR measurements

(KDB 616217 D04v01r02 §6.3)

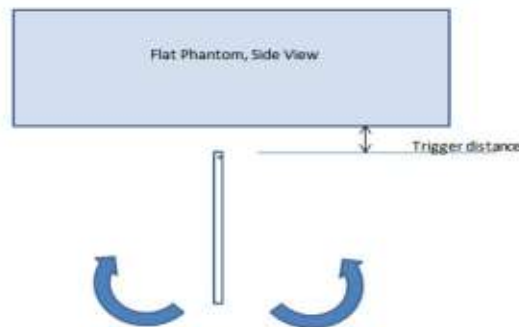
As there is no spatial offset between the antenna and the proximity sensor element, proximity sensor coverage did not need to be assessed.

2.4 Proximity Sensor Tilt Angle Assessment

(KDB 616217 D04v01r02 §6.4)

The DUT was positioned directly below the flat phantom at the minimum measured trigger distance with Top/Left side parallel to the base of the flat phantom for each band.

The EUT was rotated about Bottom side for angles up to $\pm 45^\circ$. 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 $\pm 45^\circ$.



Proximity sensor tilt angle assessment (bottom side) KDB 616217 §6.4

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Top side)

Band (MHz)	Minimum distance at which power reduction was maintained over -45°	Power reduction status										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
2.4GHz 802.11b	10 mm	12.61	12.58	12.67	12.58	12.68	12.71	12.65	12.75	12.75	12.64	12.65
2.4GHz 802.11g	10 mm	12.86	12.77	12.66	12.67	12.79	12.82	12.69	12.81	12.82	12.7	12.71
2.4GHz 802.11n (2ch-11ch)	10 mm	12.12	12.06	12.23	12.21	12.05	12.13	12.11	12.07	12.19	12.2	12.24
5GHz 802.11a	10 mm	8.97	9.03	9	8.96	8.98	9.03	8.93	8.98	9.01	8.99	8.99
5GHz 802.11n 20MHz	10 mm	8.69	8.8	8.84	8.79	8.84	8.78	8.81	8.7	8.74	8.85	8.75
5GHz 802.11n 40MHz	10 mm	8.56	8.53	8.53	8.45	8.62	8.55	8.61	8.44	8.51	8.51	8.6
5GHz 802.11ac 20MHz	10 mm	8.55	8.43	8.43	8.5	8.45	8.43	8.41	8.44	8.39	8.54	8.55
5GHz 802.11ac 40MHz	10 mm	8.85	8.7	8.77	8.7	8.84	8.82	8.83	8.76	8.85	8.78	8.68
5GHz 802.11ac 80MHz	10 mm	9.17	9.01	9.15	9.05	9.12	9.04	9.03	9.18	9.13	9.06	9.01

Summary of Tablet Tilt Angle influence to Proximity Sensor Triggering (Left side)

Band (MHz)	Minimum distance at which power reduction was maintained over -45°	Power reduction status										
		-45°	-40°	-30°	-20°	-10°	0°	10°	20°	30°	40°	45°
2.4GHz 802.11b	7 mm	12.69	12.66	12.74	12.7	12.71	12.59	12.57	12.58	12.69	12.58	12.69
2.4GHz 802.11g	7 mm	12.75	12.77	12.75	12.86	12.68	12.67	12.82	12.74	12.71	12.8	12.85
2.4GHz 802.11n (2ch-11ch)	7 mm	12.22	12.04	12.19	12.21	12.1	12.13	12.1	12.05	12.05	12.12	12.1
5GHz 802.11a	7 mm	9.06	8.94	8.99	8.91	8.93	8.87	9.01	8.9	8.93	8.97	8.9
5GHz 802.11n 20MHz	7 mm	8.69	8.83	8.74	8.8	8.71	8.82	8.82	8.81	8.72	8.84	8.83
5GHz 802.11n 40MHz	7 mm	8.48	8.62	8.49	8.5	8.52	8.52	8.5	8.47	8.53	8.48	8.54
5GHz 802.11ac 20MHz	7 mm	8.49	8.52	8.42	8.56	8.48	8.37	8.52	8.53	8.36	8.52	8.48
5GHz 802.11ac 40MHz	7 mm	8.67	8.79	8.67	8.78	8.82	8.81	8.7	8.76	8.74	8.79	8.8
5GHz 802.11ac 80MHz	7 mm	9.15	9.01	9.17	9.13	9.12	9.13	9.14	9.17	9.02	9	9.03

2.5 Resulting test positions for Tablet SAR measurements

Wireless technologies	Position	§6.2 Triggering Distance	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Tablet SAR
WLAN 2.4 GHz/ 5 GHz	Rear	9	N/A	N/A	8
	Top Side	10	N/A	10	9
	Left Side	7	N/A	N/A	6
	Left Conner	7	N/A	N/A	6

Note: FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in proximity use conditions.



FCC ID. A3LSMT725U