Appendix H. – Power reduction verification

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

Procedures for determining proximity sensor triggering distances

(KDB 616217 D04v01r02 §6.2)

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

1. 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.
2. 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 was conformed to be the same or larger (more conservative) than the minimum distances provided by the manufacturer.
3. Step 1 and 2 were repeated for the relevant modes, as appropriate
4. Steps1 through 3 were repeated for all distance-based power reduction mechanisms.

For detailed measurement conducted power results, please refer to the Section .11

1. Power reduction Verification for WLAN 1 Ant

This device uses a power reduction mechanism for SAR compliance for WLAN operations during Proximity scenarios.

Tissue simulating liquid	Trigger distance Rear		Trigger distance Right Side		Trigger distance Right Corner Side		Trigger distance Top	
	Moving toward phantom [mm]	Moving away from phantom [mm]	Moving toward phantom [mm]	Moving away from phantom [mm]	Moving toward phantom [mm]	Moving away from phantom [mm]	Moving toward phantom [mm]	Moving away from phantom [mm]
2450MHz	20	21	8	9	9	10	24	25
5000MHz	20	21	8	9	9	10	24	25
6500MHz	20	21	8	9	9	10	24	25

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

Mode	Distance to DUT Output power (dBm)									
	25	24	23	22	21	20	19	18	17	16
2.4GHz 802.11g	16.17	16.27	16.21	16.19	16.09	12.82	12.80	12.76	12.83	12.80
2.4GHz 802.11b	15.37	15.38	15.35	15.18	15.36	12.61	12.65	12.53	12.56	12.67
2.4GHz 802.11n	17.14	17.08	17.06	17.15	17.21	12.42	12.49	12.43	12.41	12.53
2.4GHz 802.11ax SU	16.94	17.03	17.02	16.97	16.96	12.26	12.40	12.30	12.34	12.45
2.4GHz Bluetooth	16.32	16.33	16.46	16.38	16.40	9.79	9.76	9.87	9.85	9.87
5GHz 802.11a	16.22	16.25	16.08	16.13	16.14	8.16	8.18	8.22	8.21	8.19
5GHz 802.11n 20MHz	16.21	16.21	16.31	16.30	16.15	7.82	7.78	7.75	7.78	7.70
5GHz 802.11ac 20MHz	16.13	16.11	16.09	16.27	16.16	7.94	8.03	7.86	7.88	7.89
5GHz 802.11ax 20MHz SU	16.21	16.19	16.04	16.11	16.20	7.96	7.85	7.95	7.93	7.98
5GHz 802.11n 40MHz	16.06	16.01	16.10	16.17	16.03	8.02	7.93	7.98	7.97	7.85
5GHz 802.11ac 40MHz	16.02	16.04	16.12	15.98	16.09	7.36	7.43	7.34	7.37	7.50
5GHz 802.11ax 40MHz SU	15.98	16.07	16.13	16.10	15.96	7.89	7.98	7.97	8.02	7.99
5GHz 802.11ac 80MHz	14.83	14.80	14.90	14.78	14.92	8.64	8.77	8.64	8.62	8.79
5GH 802.11ax 80MHz SU	15.21	15.10	15.20	15.09	15.15	7.97	7.93	7.97	8.01	8.10
5GHz 802.11ac 160MHz	11.33	11.33	11.38	11.46	11.37	7.84	8.00	7.93	7.93	7.88
5GHz 802.11ax 160MHz SU	11.47	11.60	11.46	11.46	11.56	7.92	7.98	8.10	7.98	8.08
6GHz 802.11a	9.86	9.72	9.84	9.85	9.79	8.79	8.74	8.75	8.65	8.65
6GHz 802.11ax 20MHz	9.55	9.50	9.46	9.62	9.63	8.61	8.43	8.53	8.49	8.62
6GHZ 802.11ax 40MHz	8.89	8.97	8.90	9.01	8.91	7.63	7.80	7.72	7.74	7.66
6GHz 802.11ax 80MHz	8.87	9.01	8.96	8.93	9.02	7.67	7.67	7.82	7.70	7.64
6GHz 802.11ax 160MHz	8.89	8.83	8.92	9.02	9.00	7.83	7.86	7.80	7.73	7.89

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

Mode	Distance to DUT Output power (dBm)									
	16	17	18	19	20	21	22	23	24	25
2.4GHz 802.11g	12.83	12.86	12.83	12.75	12.74	16.20	16.16	16.20	16.14	16.21
2.4GHz 802.11b	12.57	12.63	12.62	12.56	12.61	15.22	15.30	15.28	15.33	15.23
2.4GHz 802.11n	12.41	12.41	12.50	12.50	12.49	17.16	17.13	17.04	17.21	17.02
2.4GHz 802.11ax SU	12.31	12.45	12.26	12.31	12.35	17.09	16.94	17.11	17.08	17.09
2.4GHz Bluetooth	9.74	9.86	9.83	9.74	9.78	16.41	16.29	16.32	16.39	16.37
5GHz 802.11a	8.26	8.22	8.16	8.13	8.22	16.16	16.17	16.24	16.15	16.08
5GHz 802.11n 20MHz	7.75	7.86	7.87	7.78	7.89	16.22	16.18	16.26	16.18	16.15
5GHz 802.11ac 20MHz	7.96	7.85	7.88	7.93	7.97	16.16	16.28	16.09	16.22	16.14
5GHz 802.11ax 20MHz SU	7.97	7.99	7.95	7.81	7.86	16.09	16.12	16.05	16.20	16.17
5GHz 802.11n 40MHz	7.87	7.91	7.87	8.00	7.91	16.14	16.09	16.07	16.02	16.07
5GHz 802.11ac 40MHz	7.33	7.50	7.35	7.37	7.41	16.03	15.97	15.97	16.13	16.03
5GHz 802.11ax 40MHz SU	7.90	7.90	8.02	7.96	7.85	15.93	16.09	15.93	16.03	16.12
5GHz 802.11ac 80MHz	8.71	8.81	8.77	8.75	8.66	14.74	14.81	14.77	14.89	14.79
5GH 802.11ax 80MHz SU	8.09	7.98	7.93	7.94	8.02	15.13	15.08	15.03	15.21	15.10
5GHz 802.11ac 160MHz	7.93	7.90	7.94	7.94	7.88	11.47	11.48	11.44	11.31	11.42
5GHz 802.11ax 160MHz SU	7.92	8.11	8.06	8.01	7.98	11.49	11.54	11.57	11.50	11.47
6GHz 802.11a	8.66	8.61	8.63	8.68	8.72	9.74	9.77	9.72	9.83	9.80
6GHz 802.11ax 20MHz	8.49	8.49	8.45	8.60	8.49	9.49	9.53	9.49	9.48	9.58
6GHZ 802.11ax 40MHz	7.70	7.66	7.71	7.71	7.68	8.84	8.98	8.85	9.00	9.03
6GHz 802.11ax 80MHz	7.78	7.66	7.82	7.73	7.80	8.98	8.99	8.95	9.01	8.93
6GHz 802.11ax 160MHz	7.78	7.86	7.88	7.79	7.82	8.86	8.87	9.01	8.92	8.85

Based on the most conservative measured triggering distance of 20mm, additional Body SAR measurements were required at 19mm from rear side for the above modes.

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

Mode	Distance to DUT Output power (dBm)									
	13	12	11	10	9	8	7	6	5	4
2.4GHz 802.11g	16.18	16.12	16.13	16.14	16.13	12.72	12.78	12.76	12.84	12.86
2.4GHz 802.11b	15.41	15.40	15.32	15.30	15.38	12.53	12.51	12.68	12.57	12.57
2.4GHz 802.11n	17.06	17.10	17.19	17.19	17.07	12.54	12.37	12.42	12.40	12.44
2.4GHz 802.11ax SU	17.06	16.93	17.02	17.05	16.93	12.41	12.40	12.41	12.34	12.33
2.4GHz Bluetooth	16.43	16.45	16.36	16.45	16.38	9.83	9.81	9.70	9.88	9.82
5GHz 802.11a	16.07	16.22	16.14	16.21	16.10	8.14	8.25	8.15	8.19	8.18
5GHz 802.11n 20MHz	16.25	16.23	16.12	16.30	16.17	7.86	7.76	7.71	7.80	7.80
5GHz 802.11ac 20MHz	16.18	16.26	16.18	16.18	16.26	7.92	8.03	8.01	8.02	8.01
5GHz 802.11ax 20MHz SU	16.08	16.21	16.09	16.22	16.14	8.01	7.97	7.98	7.82	7.99
5GHz 802.11n 40MHz	16.13	16.09	16.06	16.09	16.14	7.95	7.99	7.97	7.97	8.04
5GHz 802.11ac 40MHz	16.08	16.10	16.02	15.96	16.02	7.33	7.51	7.39	7.47	7.40
5GHz 802.11ax 40MHz SU	16.07	16.03	15.98	15.98	16.07	7.92	7.91	7.97	7.91	7.89
5GHz 802.11ac 80MHz	14.92	14.92	14.84	14.91	14.90	8.82	8.80	8.79	8.63	8.68
5GH 802.11ax 80MHz SU	15.14	15.17	15.04	15.05	15.16	7.96	7.97	7.98	7.93	7.95
5GHz 802.11ac 160MHz	11.40	11.51	11.48	11.38	11.47	7.85	8.00	7.86	8.02	7.84
5GHz 802.11ax 160MHz SU	11.60	11.44	11.45	11.54	11.56	8.01	8.10	8.05	7.92	8.01
6GHz 802.11a	9.78	9.84	9.80	9.83	9.81	8.65	8.69	8.74	8.71	8.79
6GHz 802.11ax 20MHz	9.57	9.52	9.47	9.47	9.54	8.48	8.50	8.62	8.45	8.62
6GHZ 802.11ax 40MHz	8.86	8.86	8.96	8.91	8.97	7.77	7.74	7.71	7.79	7.78
6GHz 802.11ax 80MHz	8.95	8.95	8.91	8.87	8.92	7.67	7.78	7.71	7.69	7.65
6GHz 802.11ax 160MHz	8.89	9.00	8.87	8.94	8.88	7.85	7.84	7.81	7.75	7.82

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

Mode	Distance to DUT Output power (dBm)									
	4	5	6	7	8	9	10	11	12	13
2.4GHz 802.11g	12.82	12.67	12.69	12.82	12.75	16.23	16.30	16.31	16.34	16.33
2.4GHz 802.11b	12.60	12.61	12.63	12.50	12.61	15.35	15.40	15.26	15.34	15.36
2.4GHz 802.11n	12.35	12.39	12.42	12.38	12.39	17.04	17.14	17.20	17.20	17.04
2.4GHz 802.11ax SU	12.32	12.42	12.28	12.36	12.39	16.97	16.99	17.01	16.99	16.97
2.4GHz Bluetooth	9.88	9.82	9.80	9.79	9.71	16.32	16.44	16.41	16.30	16.29
5GHz 802.11a	8.10	8.15	8.15	8.19	8.25	16.06	16.06	16.12	16.13	16.24
5GHz 802.11n 20MHz	7.76	7.82	7.75	7.81	7.73	16.25	16.15	16.30	16.18	16.19
5GHz 802.11ac 20MHz	7.97	7.85	8.02	7.93	7.89	16.16	16.23	16.26	16.20	16.17
5GHz 802.11ax 20MHz SU	7.88	7.90	7.89	7.91	7.86	16.22	16.08	16.09	16.21	16.14
5GHz 802.11n 40MHz	7.99	7.88	7.97	8.01	8.03	16.08	16.04	16.14	16.06	16.01
5GHz 802.11ac 40MHz	7.32	7.38	7.35	7.40	7.44	16.05	15.97	16.02	16.10	15.97
5GHz 802.11ax 40MHz SU	7.86	7.89	7.88	7.92	7.99	16.11	16.04	16.12	15.93	16.05
5GHz 802.11ac 80MHz	8.65	8.71	8.78	8.63	8.77	14.78	14.90	14.81	14.86	14.90
5GH 802.11ax 80MHz SU	8.08	8.12	7.96	8.09	8.05	15.15	15.03	15.01	15.04	15.05
5GHz 802.11ac 160MHz	7.88	7.90	8.01	7.97	7.86	11.48	11.35	11.32	11.48	11.32
5GHz 802.11ax 160MHz SU	8.06	8.07	7.94	8.10	8.01	11.52	11.60	11.46	11.55	11.50
6GHz 802.11a	8.63	8.69	8.64	8.73	8.76	9.79	9.76	9.74	9.73	9.73
6GHz 802.11ax 20MHz	8.44	8.53	8.60	8.51	8.56	9.60	9.63	9.52	9.60	9.53
6GHZ 802.11ax 40MHz	7.69	7.79	7.63	7.62	7.61	8.93	8.95	8.89	8.88	8.92
6GHz 802.11ax 80MHz	7.79	7.76	7.63	7.71	7.64	8.91	8.92	8.88	8.98	8.96
6GHz 802.11ax 160MHz	7.80	7.81	7.78	7.78	7.84	8.94	9.00	8.99	8.96	8.84

Based on the most conservative measured triggering distance of 8mm, additional Body SAR measurements were required at 7mm from right side for the above modes.

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

Mode	Distance to DUT Output power (dBm)									
	14	13	12	11	10	9	8	7	6	5
2.4GHz 802.11g	16.28	16.19	16.26	16.31	16.18	12.66	12.85	12.86	12.76	12.81
2.4GHz 802.11b	15.41	15.38	15.36	15.31	15.22	12.66	12.63	12.51	12.69	12.53
2.4GHz 802.11n	17.20	17.22	17.02	17.16	17.11	12.50	12.35	12.53	12.50	12.37
2.4GHz 802.11ax SU	17.05	17.09	16.99	17.07	17.07	12.37	12.28	12.29	12.40	12.31
2.4GHz Bluetooth	16.31	16.48	16.34	16.35	16.45	9.87	9.86	9.78	9.85	9.75
5GHz 802.11a	16.18	16.25	16.25	16.19	16.20	8.17	8.13	8.21	8.23	8.21
5GHz 802.11n 20MHz	16.12	16.17	16.14	16.20	16.28	7.72	7.74	7.78	7.81	7.81
5GHz 802.11ac 20MHz	16.19	16.15	16.13	16.29	16.17	7.96	7.98	7.99	8.02	7.98
5GHz 802.11ax 20MHz SU	16.19	16.09	16.15	16.14	16.17	7.86	7.85	7.97	7.95	7.98
5GHz 802.11n 40MHz	16.06	15.99	16.09	16.09	16.02	8.04	7.88	7.88	7.94	7.86
5GHz 802.11ac 40MHz	16.00	15.99	16.15	15.98	16.08	7.43	7.35	7.35	7.42	7.47
5GHz 802.11ax 40MHz SU	16.03	16.05	16.01	16.08	15.95	7.97	7.85	7.93	7.92	8.00
5GHz 802.11ac 80MHz	14.76	14.84	14.92	14.76	14.79	8.79	8.69	8.67	8.68	8.76
5GH 802.11ax 80MHz SU	15.05	15.02	15.12	15.07	15.15	7.97	7.98	8.09	8.08	8.00
5GHz 802.11ac 160MHz	11.51	11.38	11.44	11.38	11.40	7.95	7.95	7.85	7.87	8.02
5GHz 802.11ax 160MHz SU	11.54	11.51	11.53	11.46	11.47	8.10	7.92	8.05	8.10	8.02
6GHz 802.11a	9.67	9.78	9.83	9.72	9.77	8.79	8.70	8.67	8.75	8.75
6GHz 802.11ax 20MHz	9.51	9.47	9.47	9.45	9.53	8.63	8.51	8.48	8.59	8.49
6GHZ 802.11ax 40MHz	8.91	8.98	8.90	8.85	9.00	7.73	7.80	7.71	7.66	7.78
6GHz 802.11ax 80MHz	9.03	8.91	8.99	9.02	9.02	7.78	7.82	7.69	7.80	7.74
6GHz 802.11ax 160MHz	8.97	8.93	8.91	8.95	8.88	7.77	7.89	7.86	7.88	7.86

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

Mode	Distance to DUT Output power (dBm)									
	5	6	7	8	9	10	11	12	13	14
2.4GHz 802.11g	12.74	12.70	12.84	12.79	12.67	16.23	16.28	16.30	16.17	16.15
2.4GHz 802.11b	12.54	12.50	12.65	12.67	12.52	15.40	15.36	15.37	15.23	15.41
2.4GHz 802.11n	12.39	12.35	12.49	12.46	12.44	17.06	17.08	17.10	17.04	17.10
2.4GHz 802.11ax SU	12.29	12.43	12.43	12.34	12.30	16.99	17.12	17.02	17.01	17.03
2.4GHz Bluetooth	9.85	9.75	9.69	9.86	9.74	16.44	16.34	16.35	16.45	16.33
5GHz 802.11a	8.10	8.18	8.16	8.26	8.14	16.16	16.18	16.05	16.25	16.15
5GHz 802.11n 20MHz	7.70	7.87	7.81	7.79	7.89	16.19	16.12	16.30	16.15	16.27
5GHz 802.11ac 20MHz	7.95	7.98	7.95	8.00	7.96	16.17	16.22	16.18	16.09	16.23
5GHz 802.11ax 20MHz SU	7.90	8.00	7.95	7.83	7.88	16.12	16.21	16.16	16.19	16.21
5GHz 802.11n 40MHz	7.89	8.01	7.91	8.05	7.98	16.11	16.11	16.05	16.13	15.99
5GHz 802.11ac 40MHz	7.32	7.50	7.35	7.39	7.34	16.12	16.00	16.15	16.00	16.08
5GHz 802.11ax 40MHz SU	7.85	7.86	7.89	8.03	7.97	16.01	16.00	16.01	16.08	16.12
5GHz 802.11ac 80MHz	8.64	8.81	8.82	8.81	8.73	14.93	14.86	14.84	14.86	14.86
5GH 802.11ax 80MHz SU	8.05	7.95	7.95	8.01	8.08	15.09	15.20	15.13	15.05	15.08
5GHz 802.11ac 160MHz	7.96	7.87	7.98	7.94	7.84	11.35	11.40	11.36	11.44	11.38
5GHz 802.11ax 160MHz SU	7.94	8.06	8.10	8.04	7.91	11.53	11.51	11.62	11.51	11.47
6GHz 802.11a	8.74	8.80	8.77	8.69	8.62	9.86	9.85	9.71	9.76	9.82
6GHz 802.11ax 20MHz	8.52	8.49	8.62	8.55	8.62	9.61	9.59	9.59	9.54	9.52
6GHZ 802.11ax 40MHz	7.65	7.65	7.63	7.75	7.69	8.87	8.96	8.95	8.86	9.04
6GHz 802.11ax 80MHz	7.77	7.66	7.76	7.82	7.74	8.90	8.85	9.01	8.87	9.05
6GHz 802.11ax 160MHz	7.89	7.87	7.89	7.88	7.90	8.98	8.90	8.85	8.94	8.86

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

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

Mode	Distance to DUT Output power (dBm)									
	29	28	27	26	25	24	23	22	21	20
2.4GHz 802.11g	16.22	16.10	16.26	16.20	16.13	12.70	12.85	12.82	12.74	12.70
2.4GHz 802.11b	15.38	15.26	15.39	15.23	15.41	12.58	12.68	12.58	12.67	12.65
2.4GHz 802.11n	17.06	17.05	17.11	17.14	17.17	12.39	12.38	12.51	12.50	12.48
2.4GHz 802.11ax SU	16.96	17.07	16.99	16.99	17.12	12.31	12.27	12.29	12.41	12.27
2.4GHz Bluetooth	16.37	16.33	16.34	16.29	16.33	9.73	9.79	9.81	9.80	9.78
5GHz 802.11a	16.20	16.25	16.06	16.12	16.16	8.23	8.12	8.26	8.27	8.14
5GHz 802.11n 20MHz	16.12	16.25	16.17	16.31	16.30	7.79	7.75	7.85	7.71	7.77
5GHz 802.11ac 20MHz	16.25	16.22	16.09	16.09	16.21	7.85	7.89	7.96	7.91	8.02
5GHz 802.11ax 20MHz SU	16.10	16.16	16.10	16.10	16.08	7.84	7.87	7.81	7.96	7.90
5GHz 802.11n 40MHz	16.10	16.08	16.13	16.07	16.18	8.00	7.86	7.92	7.88	7.92
5GHz 802.11ac 40MHz	16.06	15.96	16.15	16.05	16.08	7.35	7.36	7.49	7.31	7.44
5GHz 802.11ax 40MHz SU	15.95	16.08	15.98	16.10	15.93	7.84	7.96	7.87	7.84	7.89
5GHz 802.11ac 80MHz	14.85	14.78	14.81	14.89	14.84	8.72	8.78	8.67	8.81	8.75
5GH 802.11ax 80MHz SU	15.09	15.16	15.20	15.21	15.03	8.08	7.94	7.96	8.11	8.09
5GHz 802.11ac 160MHz	11.48	11.41	11.39	11.39	11.46	7.83	7.97	7.84	7.98	7.94
5GHz 802.11ax 160MHz SU	11.45	11.62	11.46	11.54	11.55	7.92	8.05	7.96	7.97	8.09
6GHz 802.11a	9.77	9.80	9.78	9.71	9.67	8.71	8.77	8.71	8.62	8.78
6GHz 802.11ax 20MHz	9.50	9.60	9.49	9.47	9.50	8.50	8.62	8.49	8.47	8.58
6GHZ 802.11ax 40MHz	8.92	8.95	8.86	9.00	8.98	7.69	7.65	7.67	7.67	7.77
6GHz 802.11ax 80MHz	8.86	8.98	9.01	8.99	8.92	7.64	7.65	7.72	7.67	7.69
6GHz 802.11ax 160MHz	8.99	9.02	8.86	9.02	9.01	7.79	7.80	7.88	7.88	7.88

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

Mode	Distance to DUT Output power (dBm)									
	20	21	22	23	24	25	26	27	28	29
2.4GHz 802.11g	12.84	12.71	12.72	12.66	12.66	16.14	16.27	16.18	16.11	16.23
2.4GHz 802.11b	12.58	12.59	12.64	12.58	12.58	15.27	15.37	15.22	15.27	15.36
2.4GHz 802.11n	12.46	12.38	12.37	12.47	12.54	17.20	17.11	17.13	17.20	17.21
2.4GHz 802.11ax SU	12.44	12.38	12.45	12.29	12.44	16.98	16.95	17.08	16.95	16.95
2.4GHz Bluetooth	9.74	9.79	9.79	9.88	9.76	16.39	16.37	16.46	16.40	16.48
5GHz 802.11a	8.18	8.09	8.24	8.22	8.14	16.11	16.09	16.11	16.20	16.21
5GHz 802.11n 20MHz	7.80	7.75	7.73	7.89	7.77	16.25	16.15	16.29	16.13	16.15
5GHz 802.11ac 20MHz	7.98	7.98	8.00	7.97	7.98	16.09	16.20	16.21	16.18	16.26
5GHz 802.11ax 20MHz SU	7.91	7.97	7.91	8.00	7.92	16.14	16.11	16.23	16.07	16.15
5GHz 802.11n 40MHz	7.89	8.02	7.94	7.89	7.87	16.08	16.07	16.08	16.12	16.03
5GHz 802.11ac 40MHz	7.39	7.33	7.41	7.42	7.42	16.06	16.01	16.12	16.16	16.00
5GHz 802.11ax 40MHz SU	7.91	7.84	7.90	7.85	8.01	16.12	16.03	16.06	15.95	16.09
5GHz 802.11ac 80MHz	8.73	8.68	8.68	8.74	8.69	14.75	14.76	14.90	14.75	14.87
5GH 802.11ax 80MHz SU	7.98	8.03	8.04	7.93	8.01	15.18	15.05	15.02	15.21	15.14
5GHz 802.11ac 160MHz	7.91	8.01	7.88	7.87	7.98	11.43	11.33	11.40	11.39	11.43
5GHz 802.11ax 160MHz SU	7.97	7.98	7.91	8.04	8.09	11.44	11.49	11.59	11.63	11.63
6GHz 802.11a	8.80	8.69	8.78	8.73	8.78	9.75	9.78	9.78	9.75	9.73
6GHz 802.11ax 20MHz	8.56	8.52	8.57	8.61	8.44	9.53	9.53	9.44	9.51	9.45
6GHZ 802.11ax 40MHz	7.63	7.74	7.70	7.79	7.63	8.85	8.90	8.84	9.02	8.85
6GHz 802.11ax 80MHz	7.83	7.75	7.70	7.77	7.75	9.02	8.87	8.88	8.87	8.98
6GHz 802.11ax 160MHz	7.75	7.77	7.81	7.83	7.85	8.97	8.93	8.94	8.96	8.91

Based on the most conservative measured triggering distance of 24mm, additional Body SAR measurements were required at 23mm from top side for the above modes.

2.1 Proximity Sensor Coverage for SAR measurements

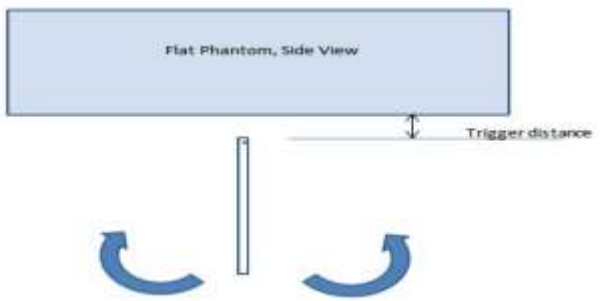
(KDB 616217 D04v01r02 §6.3)

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

2.2 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 Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to ±45°. 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 ±45°.



Proximity sensor tilt angle assessment (Top 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°
2450 MHz	24 mm	On	On	On	On	On	On	On	On	On	On	On
5000 MHz	24 mm	On	On	On	On	On	On	On	On	On	On	On
6500MHz	24 mm	On	On	On	On	On	On	On	On	On	On	On

2.3 Resulting test positions for Body SAR measurements

Wireless technologies	Position	§6.2 Triggering Distance [mm]	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Body SAR [mm]
WLAN 1 Ant	Rear	20	N/A	N/A	19
	Right	8	N/A	N/A	7
	Right Corner	9	N/A	N/A	8
	Top	24	N/A	N/A	23

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.

3. Power reduction Verification for WLAN 2 Ant

This device uses a power reduction mechanism for SAR compliance for WLAN operations during Proximity scenarios.

Tissue simulating liquid	Trigger distance – Rear		Trigger distance – Left Side		Trigger distance – Left Corner Side		Trigger distance – Top	
	Moving toward phantom [mm]	Moving away from phantom [mm]	Moving toward phantom [mm]	Moving away from phantom [mm]	Moving toward phantom [mm]	Moving away from phantom [mm]	Moving toward phantom [mm]	Moving away from phantom [mm]
2450MHz	18	19	8	9	9	10	21	22
5000MHz	18	19	8	9	9	10	21	22
6500MHz	18	19	8	9	9	10	21	22

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

Mode	Distance to DUT Output power (dBm)									
	23	22	21	20	19	18	17	16	15	14
2.4GHz 802.11g	16.73	16.54	16.63	16.56	16.70	12.08	12.14	12.04	11.99	12.00
2.4GHz 802.11b	15.74	15.54	15.70	15.62	15.63	11.99	11.97	12.02	11.95	12.08
2.4GHz 802.11n	17.40	17.24	17.25	17.22	17.22	11.92	11.87	11.97	11.84	11.91
2.4GHz 802.11ax SU	16.71	16.51	16.68	16.71	16.71	11.99	11.96	12.04	11.92	12.08
2.4GHz Bluetooth	14.64	14.52	14.54	14.55	14.51	7.65	7.82	7.76	7.79	7.83
5GHz 802.11a	16.24	16.18	16.26	16.29	16.21	7.59	7.63	7.68	7.66	7.70
5GHz 802.11n 20MHz	16.40	16.51	16.45	16.42	16.45	7.80	7.94	7.77	7.81	7.86
5GHz 802.11ac 20MHz	16.54	16.44	16.49	16.49	16.39	7.94	7.87	7.98	7.96	7.93
5GHz 802.11ax 20MHz SU	16.59	16.67	16.59	16.52	16.66	7.76	7.77	7.59	7.61	7.59
5GHz 802.11n 40MHz	16.46	16.47	16.39	16.39	16.38	8.33	8.31	8.36	8.50	8.49
5GHz 802.11ac 40MHz	16.75	16.78	16.69	16.72	16.67	8.78	8.81	8.72	8.75	8.72
5GHz 802.11ax 40MHz SU	15.64	15.76	15.75	15.68	15.66	7.59	7.62	7.51	7.69	7.55
5GHz 802.11ac 80MHz	15.42	15.58	15.58	15.43	15.50	8.70	8.80	8.82	8.73	8.79
5GH 802.11ax 80MHz SU	14.71	14.71	14.61	14.70	14.71	7.70	7.58	7.71	7.55	7.59
5GHz 802.11ac 160MHz	12.04	11.99	11.91	12.06	12.06	7.95	7.77	7.78	7.84	7.88
5GHz 802.11ax 160MHz SU	11.87	11.90	12.00	11.88	11.87	7.92	7.81	7.88	7.88	7.94
6GHz 802.11a	9.55	9.49	9.58	9.44	9.44	8.32	8.35	8.36	8.24	8.39
6GHz 802.11ax 20MHz	8.21	8.13	8.15	8.18	8.26	6.78	6.83	6.83	6.73	6.72
6GHZ 802.11ax 40MHz	8.12	8.13	7.96	8.04	7.97	6.89	6.92	7.01	7.01	6.94
6GHz 802.11ax 80MHz	8.09	8.10	8.16	8.11	8.00	6.88	7.00	6.93	6.98	7.04
6GHz 802.11ax 160MHz	8.19	8.04	8.18	8.03	8.11	6.93	7.05	6.92	6.99	6.88

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

Mode	Distance to DUT Output power (dBm)									
	14	15	16	17	18	19	20	21	22	23
2.4GHz 802.11g	12.12	12.16	11.99	12.00	12.07	16.49	16.57	16.55	16.48	16.57
2.4GHz 802.11b	12.01	12.02	11.97	12.15	12.10	15.57	15.67	15.73	15.61	15.71
2.4GHz 802.11n	11.82	11.81	11.84	11.97	11.80	17.38	17.25	17.31	17.26	17.26
2.4GHz 802.11ax SU	11.99	12.08	12.03	12.03	11.89	16.58	16.58	16.52	16.66	16.66
2.4GHz Bluetooth	7.83	7.64	7.80	7.65	7.76	14.54	14.59	14.52	14.52	14.58
5GHz 802.11a	7.72	7.72	7.76	7.66	7.67	16.24	16.38	16.22	16.36	16.25
5GHz 802.11n 20MHz	7.85	7.82	7.92	7.95	7.94	16.42	16.53	16.44	16.54	16.43
5GHz 802.11ac 20MHz	7.82	7.95	7.96	7.84	7.98	16.48	16.51	16.56	16.40	16.44
5GHz 802.11ax 20MHz SU	7.66	7.64	7.76	7.75	7.70	16.48	16.60	16.56	16.57	16.51
5GHz 802.11n 40MHz	8.41	8.43	8.47	8.46	8.32	16.46	16.43	16.36	16.42	16.42
5GHz 802.11ac 40MHz	8.87	8.72	8.81	8.87	8.82	16.65	16.59	16.67	16.73	16.77
5GHz 802.11ax 40MHz SU	7.68	7.69	7.68	7.55	7.50	15.62	15.69	15.71	15.61	15.79
5GHz 802.11ac 80MHz	8.73	8.72	8.83	8.69	8.65	15.52	15.52	15.44	15.48	15.43
5GH 802.11ax 80MHz SU	7.72	7.56	7.67	7.58	7.72	14.64	14.63	14.57	14.54	14.60
5GHz 802.11ac 160MHz	7.77	7.84	7.81	7.86	7.93	12.09	11.98	12.00	12.08	12.03
5GHz 802.11ax 160MHz SU	7.95	7.90	7.97	7.90	7.82	11.95	11.99	11.91	11.89	11.83
6GHz 802.11a	8.39	8.36	8.25	8.30	8.24	9.53	9.51	9.43	9.45	9.54
6GHz 802.11ax 20MHz	6.78	6.76	6.84	6.66	6.79	8.11	8.18	8.27	8.25	8.17
6GHZ 802.11ax 40MHz	7.00	6.85	6.92	7.02	7.01	7.98	8.12	7.94	8.05	8.07
6GHz 802.11ax 80MHz	6.96	6.99	6.89	6.89	6.97	8.04	7.97	8.00	8.07	8.01
6GHz 802.11ax 160MHz	6.91	7.02	6.88	6.93	7.02	8.02	8.16	8.00	8.03	7.99

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

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

Mode	Distance to DUT Output power (dBm)									
	13	12	11	10	9	8	7	6	5	4
2.4GHz 802.11g	16.78	16.73	16.64	16.68	16.76	12.07	12.15	12.03	12.15	11.99
2.4GHz 802.11b	15.63	15.74	15.60	15.66	15.65	12.09	12.05	12.08	11.96	12.12
2.4GHz 802.11n	17.22	17.21	17.21	17.40	17.38	11.86	11.90	11.92	11.85	11.88
2.4GHz 802.11ax SU	16.61	16.52	16.60	16.57	16.56	12.04	11.88	11.96	11.99	12.04
2.4GHz Bluetooth	14.58	14.56	14.63	14.48	14.62	7.74	7.81	7.82	7.69	7.81
5GHz 802.11a	16.27	16.21	16.29	16.38	16.26	7.70	7.62	7.70	7.78	7.77
5GHz 802.11n 20MHz	16.46	16.41	16.40	16.49	16.51	7.85	7.77	7.89	7.92	7.85
5GHz 802.11ac 20MHz	16.50	16.53	16.41	16.40	16.56	7.85	7.89	7.98	7.96	7.90
5GHz 802.11ax 20MHz SU	16.48	16.48	16.60	16.56	16.64	7.58	7.74	7.59	7.62	7.65
5GHz 802.11n 40MHz	16.48	16.53	16.38	16.49	16.47	8.44	8.43	8.43	8.42	8.41
5GHz 802.11ac 40MHz	16.74	16.65	16.67	16.68	16.67	8.80	8.89	8.82	8.72	8.79
5GHz 802.11ax 40MHz SU	15.63	15.71	15.68	15.70	15.61	7.52	7.56	7.67	7.59	7.65
5GHz 802.11ac 80MHz	15.55	15.44	15.53	15.44	15.53	8.74	8.84	8.71	8.67	8.78
5GH 802.11ax 80MHz SU	14.60	14.57	14.57	14.62	14.54	7.64	7.59	7.63	7.73	7.66
5GHz 802.11ac 160MHz	12.06	11.97	12.00	11.99	11.91	7.93	7.95	7.91	7.88	7.91
5GHz 802.11ax 160MHz SU	11.91	11.83	11.90	11.87	12.01	7.83	7.95	7.91	7.94	7.91
6GHz 802.11a	9.55	9.53	9.48	9.43	9.46	8.42	8.31	8.27	8.35	8.29
6GHz 802.11ax 20MHz	8.17	8.23	8.17	8.16	8.25	6.82	6.75	6.70	6.78	6.67
6GHZ 802.11ax 40MHz	7.93	7.99	8.12	8.03	7.98	6.90	6.90	6.97	6.83	6.92
6GHz 802.11ax 80MHz	8.11	8.05	8.10	8.02	7.99	6.95	6.92	6.98	6.91	6.91
6GHz 802.11ax 160MHz	8.14	8.11	8.12	8.00	8.17	7.05	6.98	7.01	7.02	6.88

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

Mode	Distance to DUT Output power (dBm)									
	4	5	6	7	8	9	10	11	12	13
2.4GHz 802.11g	12.05	12.02	12.10	12.17	12.05	16.59	16.56	16.62	16.74	16.72
2.4GHz 802.11b	12.09	12.01	12.08	12.15	12.14	15.68	15.59	15.68	15.62	15.58
2.4GHz 802.11n	11.99	11.81	11.96	11.89	11.95	17.35	17.23	17.29	17.30	17.21
2.4GHz 802.11ax SU	11.94	11.94	11.97	12.00	11.95	16.66	16.58	16.51	16.58	16.69
2.4GHz Bluetooth	7.76	7.65	7.78	7.81	7.72	14.51	14.63	14.48	14.61	14.61
5GHz 802.11a	7.70	7.71	7.79	7.66	7.60	16.19	16.28	16.38	16.30	16.34
5GHz 802.11n 20MHz	7.89	7.83	7.89	7.96	7.77	16.44	16.45	16.46	16.48	16.42
5GHz 802.11ac 20MHz	7.91	7.88	7.90	7.86	7.96	16.48	16.51	16.45	16.48	16.41
5GHz 802.11ax 20MHz SU	7.75	7.63	7.64	7.70	7.62	16.53	16.48	16.61	16.59	16.61
5GHz 802.11n 40MHz	8.42	8.50	8.44	8.47	8.39	16.37	16.38	16.45	16.41	16.50
5GHz 802.11ac 40MHz	8.72	8.70	8.77	8.82	8.74	16.73	16.76	16.60	16.66	16.68
5GHz 802.11ax 40MHz SU	7.62	7.52	7.62	7.67	7.65	15.69	15.73	15.61	15.69	15.73
5GHz 802.11ac 80MHz	8.83	8.81	8.84	8.82	8.69	15.51	15.42	15.59	15.57	15.51
5GH 802.11ax 80MHz SU	7.73	7.68	7.73	7.60	7.65	14.60	14.66	14.64	14.63	14.61
5GHz 802.11ac 160MHz	7.77	7.84	7.82	7.96	7.78	12.01	12.10	12.08	11.97	12.03
5GHz 802.11ax 160MHz SU	7.96	7.94	7.95	7.96	7.88	12.00	11.84	11.89	11.82	11.87
6GHz 802.11a	8.38	8.40	8.36	8.24	8.33	9.54	9.44	9.46	9.51	9.54
6GHz 802.11ax 20MHz	6.81	6.77	6.70	6.68	6.81	8.08	8.14	8.20	8.26	8.15
6GHZ 802.11ax 40MHz	7.02	7.02	6.95	6.92	6.90	8.11	7.99	8.12	8.09	8.08
6GHz 802.11ax 80MHz	6.89	7.04	7.05	7.02	6.98	8.10	8.02	8.09	7.97	8.03
6GHz 802.11ax 160MHz	6.88	6.91	7.03	7.07	6.92	8.12	8.00	8.08	8.08	8.03

Based on the most conservative measured triggering distance of 8mm, additional Body SAR measurements were required at 7mm from left side for the above modes.

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

Mode	Distance to DUT Output power (dBm)									
	14	13	12	11	10	9	8	7	6	5
2.4GHz 802.11g	16.74	16.80	16.77	16.78	16.65	12.01	12.13	12.07	12.09	12.03
2.4GHz 802.11b	15.62	15.59	15.67	15.71	15.72	12.10	12.12	12.15	11.98	12.02
2.4GHz 802.11n	17.25	17.40	17.25	17.23	17.20	11.90	11.86	11.84	11.92	11.81
2.4GHz 802.11ax SU	16.65	16.54	16.55	16.59	16.63	11.96	11.89	11.97	11.90	11.93
2.4GHz Bluetooth	14.50	14.62	14.48	14.48	14.59	7.67	7.78	7.77	7.80	7.75
5GHz 802.11a	16.26	16.19	16.24	16.22	16.22	7.70	7.68	7.75	7.67	7.74
5GHz 802.11n 20MHz	16.44	16.59	16.42	16.45	16.50	7.80	7.84	7.78	7.89	7.92
5GHz 802.11ac 20MHz	16.48	16.49	16.41	16.57	16.50	7.83	8.00	7.93	8.00	7.87
5GHz 802.11ax 20MHz SU	16.51	16.67	16.48	16.57	16.52	7.69	7.63	7.60	7.61	7.61
5GHz 802.11n 40MHz	16.41	16.46	16.43	16.55	16.46	8.41	8.39	8.35	8.49	8.39
5GHz 802.11ac 40MHz	16.65	16.60	16.61	16.69	16.69	8.82	8.86	8.79	8.76	8.84
5GHz 802.11ax 40MHz SU	15.77	15.76	15.79	15.78	15.72	7.52	7.65	7.55	7.64	7.61
5GHz 802.11ac 80MHz	15.44	15.44	15.54	15.57	15.61	8.76	8.80	8.66	8.82	8.77
5GH 802.11ax 80MHz SU	14.67	14.62	14.54	14.57	14.70	7.64	7.70	7.71	7.60	7.64
5GHz 802.11ac 160MHz	11.99	12.01	11.94	12.05	12.02	7.80	7.96	7.88	7.94	7.81
5GHz 802.11ax 160MHz SU	11.82	11.89	11.82	11.85	11.88	7.89	7.90	7.79	7.88	7.94
6GHz 802.11a	9.50	9.44	9.48	9.50	9.42	8.33	8.34	8.29	8.30	8.38
6GHz 802.11ax 20MHz	8.25	8.08	8.14	8.08	8.25	6.65	6.65	6.66	6.84	6.68
6GHZ 802.11ax 40MHz	8.10	7.94	7.99	7.99	8.05	6.85	6.97	6.98	7.02	6.89
6GHz 802.11ax 80MHz	8.15	8.05	8.05	8.09	8.00	6.90	7.04	6.92	6.85	7.02
6GHz 802.11ax 160MHz	8.07	8.05	8.06	8.19	8.07	6.89	6.95	7.08	6.89	6.93

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

Mode	Distance to DUT Output power (dBm)									
	5	6	7	8	9	10	11	12	13	14
2.4GHz 802.11g	12.08	12.09	12.14	12.15	12.08	16.73	16.73	16.81	16.71	16.65
2.4GHz 802.11b	12.03	12.01	12.10	12.13	12.02	15.60	15.54	15.68	15.68	15.67
2.4GHz 802.11n	11.92	11.95	11.93	11.85	11.84	17.32	17.33	17.29	17.23	17.38
2.4GHz 802.11ax SU	11.96	11.98	12.05	12.07	11.99	16.59	16.63	16.62	16.56	16.57
2.4GHz Bluetooth	7.81	7.65	7.76	7.76	7.73	14.62	14.58	14.48	14.51	14.59
5GHz 802.11a	7.61	7.73	7.75	7.63	7.65	16.35	16.22	16.20	16.32	16.27
5GHz 802.11n 20MHz	7.86	7.87	7.88	7.78	7.92	16.52	16.41	16.41	16.42	16.56
5GHz 802.11ac 20MHz	7.85	7.90	7.95	7.90	7.81	16.54	16.49	16.40	16.57	16.59
5GHz 802.11ax 20MHz SU	7.68	7.63	7.72	7.62	7.68	16.57	16.64	16.53	16.55	16.63
5GHz 802.11n 40MHz	8.50	8.42	8.47	8.46	8.42	16.53	16.45	16.47	16.48	16.37
5GHz 802.11ac 40MHz	8.84	8.88	8.73	8.71	8.75	16.70	16.63	16.64	16.66	16.62
5GHz 802.11ax 40MHz SU	7.62	7.56	7.61	7.66	7.51	15.60	15.62	15.75	15.66	15.66
5GHz 802.11ac 80MHz	8.81	8.73	8.79	8.71	8.79	15.44	15.45	15.56	15.44	15.52
5GH 802.11ax 80MHz SU	7.72	7.58	7.72	7.59	7.60	14.66	14.62	14.69	14.70	14.61
5GHz 802.11ac 160MHz	7.94	7.84	7.83	7.87	7.79	12.03	11.94	12.05	12.08	11.99
5GHz 802.11ax 160MHz SU	7.84	7.94	7.93	7.91	7.94	11.97	11.92	11.92	11.96	11.96
6GHz 802.11a	8.36	8.35	8.27	8.42	8.33	9.56	9.53	9.53	9.57	9.54
6GHz 802.11ax 20MHz	6.84	6.67	6.74	6.70	6.75	8.17	8.26	8.24	8.13	8.21
6GHZ 802.11ax 40MHz	6.97	6.93	6.91	6.96	6.89	7.98	8.00	8.11	8.03	8.07
6GHz 802.11ax 80MHz	6.99	7.03	6.85	6.89	6.98	8.14	7.98	8.13	8.07	7.98
6GHz 802.11ax 160MHz	7.04	6.99	7.00	7.08	7.06	8.00	8.15	8.02	8.14	8.14

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

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

Mode	Distance to DUT Output power (dBm)									
	26	25	24	23	22	21	20	19	18	17
2.4GHz 802.11g	16.81	16.77	16.74	16.73	16.83	12.02	12.01	12.00	11.99	12.14
2.4GHz 802.11b	15.83	15.77	15.66	15.69	15.74	12.08	12.05	12.07	12.07	12.10
2.4GHz 802.11n	17.30	17.24	17.27	17.28	17.28	12.00	11.92	11.98	11.88	11.91
2.4GHz 802.11ax SU	16.53	16.58	16.56	16.57	16.68	11.89	11.88	11.89	11.90	12.04
2.4GHz Bluetooth	14.48	14.65	14.55	14.58	14.59	7.64	7.75	7.65	7.66	7.78
5GHz 802.11a	16.37	16.34	16.36	16.27	16.23	7.67	7.70	7.61	7.78	7.74
5GHz 802.11n 20MHz	16.45	16.49	16.58	16.55	16.59	7.91	7.81	7.85	7.77	7.93
5GHz 802.11ac 20MHz	16.55	16.58	16.56	16.48	16.52	7.84	7.88	7.84	7.95	7.97
5GHz 802.11ax 20MHz SU	16.59	16.68	16.68	16.65	16.63	7.72	7.64	7.64	7.75	7.68
5GHz 802.11n 40MHz	16.47	16.44	16.46	16.55	16.51	8.30	8.47	8.47	8.48	8.40
5GHz 802.11ac 40MHz	16.59	16.75	16.72	16.62	16.70	8.78	8.84	8.74	8.85	8.74
5GHz 802.11ax 40MHz SU	15.65	15.66	15.69	15.76	15.62	7.52	7.57	7.63	7.59	7.57
5GHz 802.11ac 80MHz	15.57	15.45	15.48	15.43	15.41	8.82	8.74	8.67	8.74	8.77
5GH 802.11ax 80MHz SU	14.68	14.69	14.65	14.66	14.67	7.67	7.68	7.59	7.58	7.70
5GHz 802.11ac 160MHz	12.05	12.08	12.09	12.00	11.92	7.85	7.91	7.80	7.93	7.81
5GHz 802.11ax 160MHz SU	11.99	11.82	11.99	11.96	11.95	7.92	7.85	7.80	7.80	7.89
6GHz 802.11a	9.42	9.52	9.55	9.42	9.41	8.28	8.35	8.23	8.31	8.39
6GHz 802.11ax 20MHz	8.14	8.08	8.08	8.13	8.21	6.73	6.74	6.67	6.83	6.75
6GHZ 802.11ax 40MHz	7.95	8.07	8.11	8.09	8.06	6.99	6.89	7.01	6.97	7.02
6GHz 802.11ax 80MHz	8.10	8.10	8.16	8.10	8.00	6.97	7.03	6.97	6.90	7.00
6GHz 802.11ax 160MHz	7.99	8.02	8.01	8.03	8.09	7.04	6.89	7.02	6.97	6.95

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

Mode	Distance to DUT Output power (dBm)									
	17	18	19	20	21	22	23	24	25	26
2.4GHz 802.11g	12.08	12.05	12.00	12.03	12.12	16.76	16.71	16.74	16.86	16.83
2.4GHz 802.11b	12.01	11.97	11.98	12.12	12.00	15.79	15.81	15.73	15.84	15.84
2.4GHz 802.11n	11.87	11.84	11.94	11.90	11.84	17.31	17.35	17.34	17.27	17.34
2.4GHz 802.11ax SU	12.04	12.01	12.02	11.89	11.91	16.62	16.62	16.66	16.55	16.64
2.4GHz Bluetooth	7.78	7.72	7.79	7.78	7.68	14.52	14.64	14.53	14.49	14.66
5GHz 802.11a	7.65	7.76	7.64	7.71	7.60	16.81	16.71	16.74	16.81	16.76
5GHz 802.11n 20MHz	7.83	7.94	7.82	7.83	7.83	16.54	16.57	16.58	16.44	16.55
5GHz 802.11ac 20MHz	7.86	7.99	7.91	7.95	8.01	16.76	16.63	16.71	16.70	16.75
5GHz 802.11ax 20MHz SU	7.75	7.60	7.58	7.73	7.66	16.58	16.65	16.55	16.73	16.58
5GHz 802.11n 40MHz	8.33	8.38	8.46	8.43	8.38	16.39	16.37	16.38	16.53	16.49
5GHz 802.11ac 40MHz	8.86	8.70	8.71	8.82	8.80	16.77	16.68	16.64	16.60	16.78
5GHz 802.11ax 40MHz SU	7.67	7.60	7.62	7.65	7.56	15.66	15.79	15.68	15.71	15.64
5GHz 802.11ac 80MHz	8.66	8.74	8.85	8.76	8.68	15.44	15.55	15.60	15.60	15.56
5GH 802.11ax 80MHz SU	7.57	7.59	7.58	7.67	7.70	14.56	14.67	14.65	14.61	14.52
5GHz 802.11ac 160MHz	7.84	7.82	7.86	7.83	7.80	12.09	11.98	12.00	11.93	12.10
5GHz 802.11ax 160MHz SU	7.80	7.80	7.83	7.86	7.97	11.88	11.95	11.88	11.81	12.00
6GHz 802.11a	8.29	8.29	8.29	8.27	8.36	9.55	9.54	9.56	9.58	9.42
6GHz 802.11ax 20MHz	6.83	6.84	6.75	6.81	6.71	8.14	8.11	8.09	8.24	8.13
6GHZ 802.11ax 40MHz	6.88	6.85	6.98	6.97	6.93	7.98	7.97	8.03	7.97	8.12
6GHz 802.11ax 80MHz	7.04	6.95	6.91	7.01	6.87	8.04	7.99	8.13	8.05	8.04
6GHz 802.11ax 160MHz	6.94	6.93	7.05	7.05	6.99	8.04	8.05	8.10	8.18	8.09

Based on the most conservative measured triggering distance of 21mm, additional Body SAR measurements were required at 20mm from top side for the above modes.

3.1 Proximity Sensor Coverage for SAR measurements

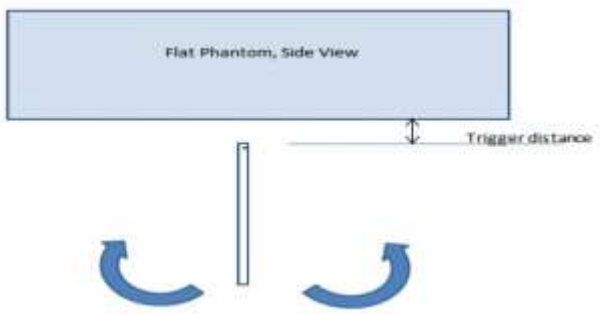
(KDB 616217 D04v01r02 §6.3)

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

3.2 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 Bottom side parallel to the base of the flat phantom for each band. The EUT was rotated about Bottom side for angles up to ±45°. 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 ±45°.



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°
2450 MHz	21 mm	On	On	On	On	On	On	On	On	On	On	On
5000 MHz	21 mm	On	On	On	On	On	On	On	On	On	On	On
6500 MHz	21 mm	On	On	On	On	On	On	On	On	On	On	On

3.3 Resulting test positions for Body SAR measurements

Wireless technologies	Position	§6.2 Triggering Distance [mm]	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for Body SAR [mm]
WLAN 2 Ant	Rear	18	N/A	N/A	17
	Left	8	N/A	N/A	7
	Left Corner	9	N/A	N/A	8
	Top	21	N/A	N/A	20

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.