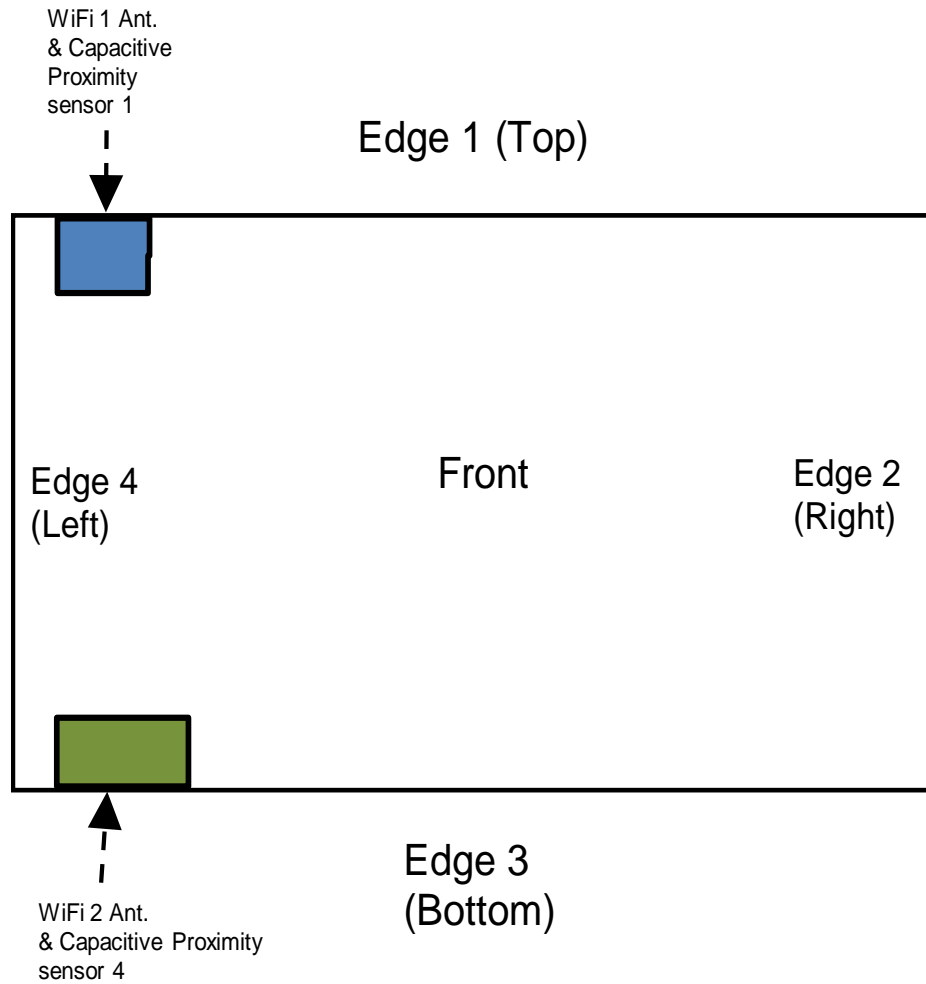


Appendix G. Proximity sensor feature

The DUT has two proximity sensors to reduce the output power. The position of the sensors and antenna are as shown in the graphic.

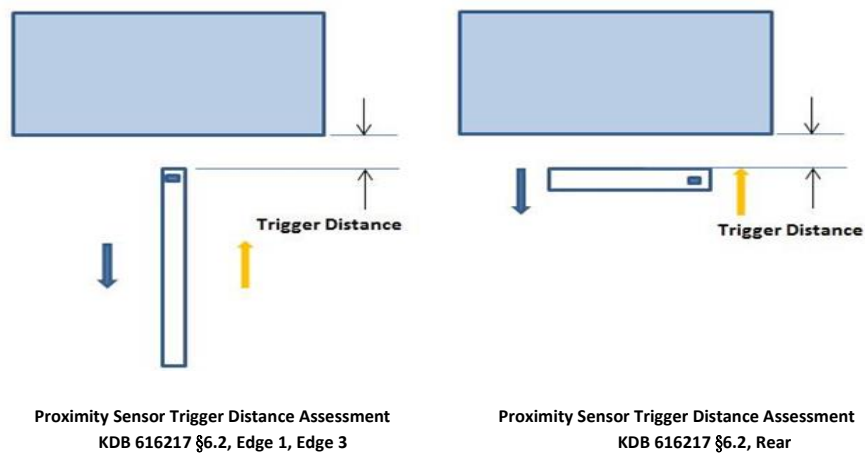


G.1 Proximity Sensor Triggering Distance (KDB 616217 §6.2)

Rear, Edge 1, Edge 3 of the DUT was placed directly below the flat phantom. The DUT was moved toward the phantom in accordance with the steps outlined in KDB 616217 §6.2 to determine the trigger distance for enabling power reduction. The DUT was moved away from the phantom to determine the trigger distance for resuming full power.

The DUT featured a visual indicator on its display that showed the status of the proximity sensor (Triggered or not triggered). This was used to determine the status of the sensor during the proximity sensor assessment as monitoring the output power directly was not practical without affecting the measurement.

It was confirmed separately that the output power was altered according to the proximity sensor status indication. This was achieved by observing the proximity sensor status at the same time as monitoring the conducted power. Section 9 contains both the full and reduced conducted power measurements.



LEGEND

- Direction of DUT travel for determination of power reduction triggering point
- Direction of DUT travel for determination of full power resumption triggering point

Summary of Trigger Distances

Antenna	Trigger distance - Rear		Trigger distance – Edge 1	
	Moving toward phantom	Moving from phantom	Moving toward phantom	Moving from phantom
WiFi 1 Ant.	15 mm	15 mm	17 mm	17 mm

Antenna	Trigger distance – Rear		Trigger distance – Edge 3	
	Moving toward phantom	Moving from phantom	Moving toward phantom	Moving from phantom
WiFi 2 Ant.	15 mm	15 mm	14 mm	14 mm

Proximity Sensor Triggering Distance Measurement Results

WiFi 1 Ant.

Rear, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm											
Antenna	Distance	11	12	13	14	15	16	17	18	19	20
Ant 1	2.4G Wi-Fi 11b Tx	9.96	9.63	10.24	9.92	9.81	18.75	19.18	18.87	19.20	19.23
	2.4G Wi-Fi 11g Tx	10.24	10.22	10.09	10.24	10.16	18.04	18.07	18.17	17.95	18.05
	2.4G Wi-Fi 11n Tx	10.04	10.15	9.99	9.96	9.82	17.20	17.03	17.11	17.13	16.93
	2.4G Wi-Fi 11ac Tx	9.97	10.08	9.92	9.89	9.75	17.13	17.09	17.04	17.06	16.86
	5GHz Wi-Fi(20MHz BW) 11a	7.05	7.17	7.23	7.17	7.09	16.99	17.22	17.05	17.16	17.09
	5GHz Wi-Fi(20MHz BW) 11n	7.05	7.17	7.23	7.17	7.09	15.99	16.19	16.23	16.16	16.24
	5GHz Wi-Fi(20MHz BW) 11ac	7.11	6.92	7.27	6.88	7.24	16.05	16.11	16.20	15.92	16.37
	5GHz Wi-Fi(20MHz BW) 11ax	6.90	7.12	6.88	7.20	6.91	16.05	16.04	15.99	16.25	16.14
	5GHz Wi-Fi(40MHz BW) 11n	6.98	7.09	7.17	7.04	6.97	15.93	16.21	16.20	16.04	15.96
	5GHz Wi-Fi(40MHz BW) 11ac	6.96	6.89	7.14	7.08	6.96	14.21	14.02	14.05	13.88	13.90
	5GHz Wi-Fi(40MHz BW) 11ax	7.30	7.08	6.90	7.10	7.14	16.17	16.17	15.98	16.24	16.05
	5GHz Wi-Fi(80MHz BW) 11ac	7.02	7.11	6.82	7.19	6.99	12.97	13.09	13.09	13.18	12.91
	5GHz Wi-Fi(80MHz BW) 11ax	6.97	7.19	7.15	7.06	7.14	14.88	15.14	14.93	15.27	15.03
	Bluetooth BDR	7.53	7.47	7.57	7.44	7.69	18.12	18.02	18.19	18.05	18.08
	Bluetooth EDR	8.54	8.81	8.62	8.75	8.57	16.71	16.57	16.93	16.57	16.42

Edge 1, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm											
Antenna	Distance	13	14	15	16	17	18	19	20	21	22
Ant 1	2.4G Wi-Fi 11b Tx	10.00	9.67	10.28	9.96	9.85	18.79	19.22	18.91	19.24	19.27
	2.4G Wi-Fi 11g Tx	10.28	10.26	10.13	10.28	10.20	18.08	18.11	18.21	17.99	18.09
	2.4G Wi-Fi 11n Tx	10.08	10.19	10.03	10.00	9.86	17.24	17.07	17.15	17.17	16.97
	2.4G Wi-Fi 11ac Tx	10.01	10.12	9.96	9.93	9.79	17.17	17.13	17.08	17.10	16.90
	5GHz Wi-Fi(20MHz BW) 11a	7.26	7.23	7.22	7.13	7.10	17.03	17.26	17.09	17.20	17.13
	5GHz Wi-Fi(20MHz BW) 11n	7.09	7.21	7.27	7.21	7.13	16.03	16.23	16.27	16.20	16.28
	5GHz Wi-Fi(20MHz BW) 11ac	7.15	6.96	7.31	6.92	7.28	16.09	16.15	16.24	15.96	16.41
	5GHz Wi-Fi(20MHz BW) 11ax	6.94	7.16	6.92	7.24	6.95	16.09	16.08	16.03	16.29	16.18
	5GHz Wi-Fi(40MHz BW) 11n	7.02	7.13	7.21	7.08	7.01	15.97	16.25	16.24	16.08	16.00
	5GHz Wi-Fi(40MHz BW) 11ac	7.00	6.93	7.18	7.12	7.00	14.25	14.06	14.09	13.92	13.94
	5GHz Wi-Fi(40MHz BW) 11ax	7.34	7.12	6.94	7.14	7.18	16.21	16.21	16.02	16.28	16.09
	5GHz Wi-Fi(80MHz BW) 11ac	7.06	7.15	6.86	7.23	7.03	13.01	13.13	13.13	13.22	12.95
	5GHz Wi-Fi(80MHz BW) 11ax	7.01	7.23	7.19	7.10	7.18	14.92	15.18	14.97	15.31	15.07
	Bluetooth BDR	7.59	7.53	7.63	7.50	7.75	18.25	18.11	18.14	18.12	18.19
	Bluetooth EDR	8.60	8.87	8.68	8.81	8.63	16.99	16.63	16.48	16.74	16.59

WiFi 2 Ant.

Rear, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm											
Antenna	Distance	11	12	13	14	15	16	17	18	19	20
Ant 2	2.4G Wi-Fi 11b Tx	9.92	9.59	10.20	9.88	9.77	18.71	19.14	18.83	19.16	19.19
	2.4G Wi-Fi 11g Tx	10.20	10.18	10.05	10.20	10.12	18.00	18.03	18.13	17.91	18.01
	2.4G Wi-Fi 11n Tx	10.00	10.11	9.95	9.92	9.78	17.16	16.99	17.07	17.09	16.89
	2.4G Wi-Fi 11ac Tx	9.93	10.04	9.88	9.85	9.71	17.09	17.05	17.00	17.02	16.82
	5GHz Wi-Fi(20MHz BW) 11a	7.18	7.15	7.14	7.05	7.02	16.95	17.18	17.01	17.12	17.05
	5GHz Wi-Fi(20MHz BW) 11n	7.01	7.13	7.19	7.13	7.05	15.95	16.15	16.19	16.12	16.20
	5GHz Wi-Fi(20MHz BW) 11ac	7.07	6.88	7.23	6.84	7.20	16.01	16.07	16.16	15.88	16.33
	5GHz Wi-Fi(20MHz BW) 11ax	6.86	7.08	6.84	7.16	6.87	16.01	16.00	15.95	16.21	16.10
	5GHz Wi-Fi(40MHz BW) 11n	6.94	7.05	7.13	7.00	6.93	15.89	16.17	16.16	16.00	15.92
	5GHz Wi-Fi(40MHz BW) 11ac	6.92	6.85	7.10	7.04	6.92	14.17	13.98	14.01	13.84	13.86
	5GHz Wi-Fi(40MHz BW) 11ax	7.26	7.04	6.86	7.06	7.10	16.13	16.13	15.94	16.20	16.01
	5GHz Wi-Fi(80MHz BW) 11ac	6.98	7.07	6.78	7.15	6.95	12.93	13.05	13.05	13.14	12.87
	5GHz Wi-Fi(80MHz BW) 11ax	6.93	7.15	7.11	7.02	7.10	14.84	15.10	14.89	15.23	14.99
	Bluetooth BDR	7.50	7.44	7.54	7.41	7.66	18.09	17.99	18.16	18.02	18.05
Bluetooth EDR	8.51	8.78	8.59	8.72	8.54	16.68	16.54	16.90	16.54	16.39	

Edge 3, DUT Moving Toward (Trigger) and Away (Release) from the Phantom

Distance to DUT vs. Output Power in dBm											
Antenna	Distance	10	11	12	13	14	15	16	17	18	19
Ant 2	2.4G Wi-Fi 11b Tx	10.16	10.19	9.98	9.65	10.26	18.77	19.20	18.89	19.22	19.25
	2.4G Wi-Fi 11g Tx	10.13	10.16	10.26	10.24	10.11	18.06	18.09	18.19	17.97	18.07
	2.4G Wi-Fi 11n Tx	10.09	10.12	10.06	10.17	10.01	17.22	17.05	17.13	17.15	16.95
	2.4G Wi-Fi 11ac Tx	10.02	10.05	9.99	10.10	9.94	17.15	17.11	17.06	17.08	16.88
	5GHz Wi-Fi(20MHz BW) 11a	7.12	7.15	7.24	7.21	7.20	17.01	17.24	17.07	17.18	17.11
	5GHz Wi-Fi(20MHz BW) 11n	7.28	7.31	7.07	7.19	7.25	16.01	16.21	16.25	16.18	16.26
	5GHz Wi-Fi(20MHz BW) 11ac	6.96	6.99	7.13	6.94	7.29	16.07	16.13	16.22	15.94	16.39
	5GHz Wi-Fi(20MHz BW) 11ax	7.08	7.11	6.92	7.14	6.90	16.07	16.06	16.01	16.27	16.16
	5GHz Wi-Fi(40MHz BW) 11n	6.81	6.84	7.00	7.11	7.19	15.95	16.23	16.22	16.06	15.98
	5GHz Wi-Fi(40MHz BW) 11ac	7.08	7.11	6.98	6.91	7.16	14.23	14.04	14.07	13.90	13.92
	5GHz Wi-Fi(40MHz BW) 11ax	6.90	6.93	7.32	7.10	6.92	16.19	16.19	16.00	16.26	16.07
	5GHz Wi-Fi(80MHz BW) 11ac	7.08	7.11	7.04	7.13	6.84	12.99	13.11	13.11	13.20	12.93
	5GHz Wi-Fi(80MHz BW) 11ax	6.92	6.95	6.99	7.21	7.17	14.90	15.16	14.95	15.29	15.05
	Bluetooth BDR	7.47	7.65	7.48	7.42	7.52	17.97	18.14	18.00	18.03	18.01
Bluetooth EDR	8.68	8.46	8.49	8.76	8.57	16.52	16.88	16.52	16.37	16.63	

G.4 Resulting test positions for SAR measurements

Wireless technologies	Position	§6.2 Triggering Distance	§6.3 Coverage	§6.4 Tilt Angle	Worst case distance for SAR
WiFi 1 Ant.	Rear	15 mm	N/A	N/A	14 mm
	Edge 1	17 mm	N/A	17 mm	16 mm
WiFi 2 Ant.	Rear	15 mm	N/A	N/A	14 mm
	Edge 3	14 mm	N/A	14 mm	13 mm

-End-