

APPENDIX G POWER REDUCTION VERIFICATION

Per the May 2017 TCBC Workshop Notes, demonstration of proper functioning of the power reduction mechanisms is required to support the corresponding SAR configurations. The verification process was divided into two parts: (1) evaluation of output power levels for individual or multiple triggering mechanisms and (2) verification of the various triggering mechanisms for power reduction.

G.1 Power Verification Procedure



The power verification was performed according to the following procedure:

1. A base station simulator was used to establish a conducted RF connection and the output power was monitored. The power measurements were confirmed to be within expected tolerances for all states before and after a power reduction mechanism was triggered.
2. Step 1 was repeated for all relevant modes and frequency bands for the mechanism being investigated.
3. Steps 1 and 2 were repeated for all individual power reduction mechanisms and combinations thereof. For the combination cases, one mechanism was switched to a 'triggered' state at a time; powers were confirmed to be within tolerances after each additional mechanism was activated.

G.2 Angle Verification Procedure

The angle 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. For licensed modes, the device state index on the device UI was monitored to determine the triggering state.
2. The device was opened and closed to determine the angle at which the mechanism triggers and the output power is reduced, per the FCC TCB Workshop Slides from November 2019. The triggering conditions of the angles was sufficient such that all possible user scenarios with the device in open condition are in the reduced power state.

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G.3 Main Antenna Verification Summary

Table G-1
Power Measurement Verification for Main Antenna – Flip Configuration

Mode/Band	Device State Index (DSI)		
	No Motion	Motion	Held-to-Ear
GSM 850 MHz South (Bottom)	3	4	2
GSM 1900 MHz South (Bottom)	3	4	2
UMTS B5 South (Bottom)	3	4	2
UMTS B2 South (Bottom)	3	4	2
LTE B71 North (Top)	3	4	2
LTE B71 South (Bottom)	3	4	2
LTE B12 North (Top)	3	4	2
LTE B12 South (Bottom)	3	4	2
LTE B13 North (Top)	3	4	2
LTE B13 South (Bottom)	3	4	2
LTE B14 North (Top)	3	4	2
LTE B14 South (Bottom)	3	4	2
LTE B5 North (Top)	3	4	2
LTE B5 South (Bottom)	3	4	2
LTE B26 North (Top)	3	4	2
LTE B26 South (Bottom)	3	4	2
LTE B66 North (Top)	3	4	2
LTE B66 South (Bottom)	3	4	2
LTE B25 North (Top)	3	4	2
LTE B25 South (Bottom)	3	4	2
LTE B30 North (Top)	3	4	2
LTE B30 South (Bottom)	3	4	2
LTE B7 North (Top)	3	4	2
LTE B7 South (Bottom)	3	4	2
LTE B41 PC3 North (Top)	3	4	2
LTE B41 PC3 South (Bottom)	3	4	2
LTE B41 PC2 North (Top)	3	4	2
LTE B41 PC2 South (Bottom)	3	4	2
LTE B48 South (Bottom)	3	4	2

Mode/Band	Device State Index (DSI)		
	"No Motion" on desk	"Motion" on lap	Held-to-Ear
NR n71 North (Top)	3	4	2
NR n71 South (Bottom)	3	4	2
NR n5 North (Top)	3	4	2
NR n5 South (Bottom)	3	4	2
NR n66 North (Top)	3	4	2
NR n66 South (Bottom)	3	4	2
NR n25 North (Top)	3	4	2
NR n25 South (Bottom)	3	4	2
NR n41 PC3 North (Top)	3	4	2
NR n41 PC3 South (Bottom)	3	4	2

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the DSI during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the time-averaged output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.



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Table G-2
Power Measurement Verification for Main Antenna – Closed Configuration

Mode/Band	Device State Index (DSI)	
	No Motion	Motion
GSM 850 MHz South (Bottom)	3	4
GSM 1900 MHz South (Bottom)	3	4
UMTS B5 South (Bottom)	3	4
UMTS B2 South (Bottom)	3	4
LTE B71 North (Top)	3	4
LTE B71 South (Bottom)	3	4
LTE B12 North (Top)	3	4
LTE B12 South (Bottom)	3	4
LTE B13 North (Top)	3	4
LTE B13 South (Bottom)	3	4
LTE B14 North (Top)	3	4
LTE B14 South (Bottom)	3	4
LTE B5 North (Top)	3	4
LTE B5 South (Bottom)	3	4
LTE B26 North (Top)	3	4
LTE B26 South (Bottom)	3	4
LTE B66 North (Top)	3	4
LTE B66 South (Bottom)	3	4
LTE B25 North (Top)	3	4
LTE B25 South (Bottom)	3	4
LTE B30 North (Top)	3	4
LTE B30 South (Bottom)	3	4
LTE B7 North (Top)	3	4
LTE B7 South (Bottom)	3	4
LTE B41 PC3 North (Top)	3	4
LTE B41 PC3 South (Bottom)	3	4
LTE B41 PC2 North (Top)	3	4
LTE B41 PC2 South (Bottom)	3	4
LTE B48 South (Bottom)	3	4

Mode/Band	Device State Index (DSI)	
	"No Motion" on desk	"Motion" on lap
NR n71 North (Top)	3	4
NR n71 South (Bottom)	3	4
NR n5 North (Top)	3	4
NR n5 South (Bottom)	3	4
NR n66 North (Top)	3	4
NR n66 South (Bottom)	3	4
NR n25 North (Top)	3	4
NR n25 South (Bottom)	3	4
NR n41 PC3 North (Top)	3	4
NR n41 PC3 South (Bottom)	3	4

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the DSI during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the time-averaged output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.



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Table G-3
Power Measurement Verification for Main Antenna – Read Configuration

Mode/Band	Device State Index (DSI)	
	No Motion	Motion
GSM 850 MHz South (Bottom)	3	5
GSM 1900 MHz South (Bottom)	3	5
UMTS B5 South (Bottom)	3	5
UMTS B2 South (Bottom)	3	5
LTE B71 North (Top)	3	5
LTE B71 South (Bottom)	3	5
LTE B12 North (Top)	3	5
LTE B12 South (Bottom)	3	5
LTE B13 North (Top)	3	5
LTE B13 South (Bottom)	3	5
LTE B14 North (Top)	3	5
LTE B14 South (Bottom)	3	5
LTE B5 North (Top)	3	5
LTE B5 South (Bottom)	3	5
LTE B26 North (Top)	3	5
LTE B26 South (Bottom)	3	5
LTE B66 North (Top)	3	5
LTE B66 South (Bottom)	3	5
LTE B25 North (Top)	3	5
LTE B25 South (Bottom)	3	5
LTE B30 North (Top)	3	5
LTE B30 South (Bottom)	3	5
LTE B7 North (Top)	3	5
LTE B7 South (Bottom)	3	5
LTE B41 PC3 North (Top)	3	5
LTE B41 PC3 South (Bottom)	3	5
LTE B41 PC2 North (Top)	3	5
LTE B41 PC2 South (Bottom)	3	5
LTE B48 South (Bottom)	3	5

Mode/Band	Device State Index (DSI)	
	"No Motion" on desk	"Motion" on lap
NR n71 North (Top)	3	5
NR n71 South (Bottom)	3	5
NR n5 North (Top)	3	5
NR n5 South (Bottom)	3	5
NR n66 North (Top)	3	5
NR n66 South (Bottom)	3	5
NR n25 North (Top)	3	5
NR n25 South (Bottom)	3	5
NR n41 PC3 North (Top)	3	5
NR n41 PC3 South (Bottom)	3	5

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the DSI during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the time-averaged output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.



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Table G-4
Power Measurement Verification for Main Antenna – Flat Configuration

Mode/Band	Device State Index (DSI)		
	No Motion	Motion	Held-to-Ear
GSM 850 MHz South (Bottom)	3	6	2
GSM 1990 MHz South (Bottom)	3	6	2
UMTS B5 South (Bottom)	3	6	2
UMTS B2 South (Bottom)	3	6	2
LTE B71 North (Top)	3	6	2
LTE B71 South (Bottom)	3	6	2
LTE B12 North (Top)	3	6	2
LTE B12 South (Bottom)	3	6	2
LTE B13 North (Top)	3	6	2
LTE B13 South (Bottom)	3	6	2
LTE B14 North (Top)	3	6	2
LTE B14 South (Bottom)	3	6	2
LTE B5 North (Top)	3	6	2
LTE B5 South (Bottom)	3	6	2
LTE B26 North (Top)	3	6	2
LTE B26 South (Bottom)	3	6	2
LTE B66 North (Top)	3	6	2
LTE B66 South (Bottom)	3	6	2
LTE B25 North (Top)	3	6	2
LTE B25 South (Bottom)	3	6	2
LTE B30 North (Top)	3	6	2
LTE B30 South (Bottom)	3	6	2
LTE B7 North (Top)	3	6	2
LTE B7 South (Bottom)	3	6	2
LTE B41 PC3 North (Top)	3	6	2
LTE B41 PC3 South (Bottom)	3	6	2
LTE B41 PC2 North (Top)	3	6	2
LTE B41 PC2 South (Bottom)	3	6	2
LTE B48 South (Bottom)	3	6	2

Mode/Band	Device State Index (DSI)		
	"No Motion" on desk	"Motion" on lap	Held-to-Ear
NR n71 North (Top)	3	6	2
NR n71 South (Bottom)	3	6	2
NR n5 North (Top)	3	6	2
NR n5 South (Bottom)	3	6	2
NR n66 North (Top)	3	6	2
NR n66 South (Bottom)	3	6	2
NR n25 North (Top)	3	6	2
NR n25 South (Bottom)	3	6	2
NR n41 PC3 North (Top)	3	6	2
NR n41 PC3 South (Bottom)	3	6	2

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the DSI during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the time-averaged output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.



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Table G-5
Angle Measurement Verification

Posture	Angle Measurements (°)	
	Closing (360 to 0)	Opening (0 to 360)
Closed / Peek	55	N/A
Read / Compose	170	60
Flat	185	175
Tent	345	190
Flip	N/A	350

WIFI Verification Summary
Table G-6

Power Measurement Verification WIFI – Flip Configuration Antenna 1

Flip								
Mechanism(s)				Mode/Band	Conducted Powers (dBm)			
1st	2nd	3rd	4th		mechanism #1	mechanism #2	mechanism #3	mechanism #4
No Motion	Motion	RCV On	WWAN Active	802.11b	14.29	14.29	14.23	14.18
No Motion	Motion	WWAN Active	RCV On	802.11b	14.29	14.29	10.26	14.29
No Motion	Motion	RCV On	WWAN Active	802.11g	13.08	13.08	13.02	13.08
No Motion	Motion	WWAN Active	RCV On	802.11g	13.08	13.08	10.94	12.87
No Motion	Motion	RCV On	WWAN Active	802.11n (2.4 GHz)	15.00	15.00	15.03	14.94
No Motion	Motion	WWAN Active	RCV On	802.11n (2.4 GHz)	15.00	15.00	10.94	15.00
No Motion	Motion	RCV On	WWAN Active	802.11a	15.00	15.00	14.91	14.92
No Motion	Motion	WWAN Active	RCV On	802.11a	15.00	15.00	10.12	15.00
No Motion	Motion	RCV On	WWAN Active	802.11n 20 MHz	15.28	15.28	15.16	15.13
No Motion	Motion	WWAN Active	RCV On	802.11n 20 MHz	15.28	15.28	10.42	15.28
No Motion	Motion	RCV On	WWAN Active	802.11n 40 MHz	15.17	15.17	15.25	15.17
No Motion	Motion	WWAN Active	RCV On	802.11n 40 MHz	15.17	15.17	10.83	15.16
No Motion	Motion	RCV On	WWAN Active	802.11ac 20 Mhz	14.91	14.91	15.21	14.79
No Motion	Motion	WWAN Active	RCV On	802.11ac 20 Mhz	14.91	14.91	10.31	14.91
No Motion	Motion	RCV On	WWAN Active	802.11ac 40 Mhz	15.38	15.38	15.41	15.25
No Motion	Motion	WWAN Active	RCV On	802.11ac 40 Mhz	15.38	15.38	10.51	15.38
No Motion	Motion	RCV On	WWAN Active	802.11ac 80 Mhz	13.82	13.82	13.66	13.63
No Motion	Motion	WWAN Active	RCV On	802.11ac 80 Mhz	13.82	13.82	9.87	13.82
No Motion	Motion	RCV On	WWAN Active	802.11ac 160 Mhz	12.12	12.12	11.52	11.96
No Motion	Motion	WWAN Active	RCV On	802.11ac 160 Mhz	12.12	12.12	10.46	12.12

*Note: IEEE801.11ax and MIMO WIFI modes were not evaluated due to equipment limitations.

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Table G-7
Power Measurement Verification WIFI – Flip Configuration Antenna 2

Flip								
Mechanism(s)				Mode/Band	Conducted Powers (dBm)			
1st	2nd	3rd	4th		mechanism #1	mechanism #2	mechanism #3	mechanism #4
No Motion	Motion	RCV On	WWAN Active	802.11b	13.66	13.66	9.12	8.95
No Motion	Motion	WWAN Active	RCV On	802.11b	13.66	13.66	10.34	8.99
No Motion	Motion	RCV On	WWAN Active	802.11g	15.59	15.59	9.97	10.03
No Motion	Motion	WWAN Active	RCV On	802.11g	15.59	15.59	11.19	10.03
No Motion	Motion	RCV On	WWAN Active	802.11n (2.4 GHz)	15.28	15.28	10.43	10.42
No Motion	Motion	WWAN Active	RCV On	802.11n (2.4 GHz)	15.28	15.28	11.29	10.28
No Motion	Motion	RCV On	WWAN Active	802.11a	14.34	14.34	9.05	8.95
No Motion	Motion	WWAN Active	RCV On	802.11a	14.34	14.34	9.98	9.02
No Motion	Motion	RCV On	WWAN Active	802.11n 20 MHz	13.97	13.97	9.38	9.20
No Motion	Motion	WWAN Active	RCV On	802.11n 20 MHz	13.97	13.97	10.17	9.24
No Motion	Motion	RCV On	WWAN Active	802.11n 40 MHz	13.65	13.65	9.43	9.33
No Motion	Motion	WWAN Active	RCV On	802.11n 40 MHz	13.65	13.65	10.48	9.22
No Motion	Motion	RCV On	WWAN Active	802.11ac 20 Mhz	14.39	14.39	9.28	9.26
No Motion	Motion	WWAN Active	RCV On	802.11ac 20 Mhz	14.39	14.39	10.04	9.33
No Motion	Motion	RCV On	WWAN Active	802.11ac 40 Mhz	14.06	14.06	9.18	9.85
No Motion	Motion	WWAN Active	RCV On	802.11ac 40 Mhz	14.06	14.06	10.48	9.69
No Motion	Motion	RCV On	WWAN Active	802.11ac 80 Mhz	13.87	13.87	8.87	9.22
No Motion	Motion	WWAN Active	RCV On	802.11ac 80 Mhz	13.87	13.87	10.07	8.92
No Motion	Motion	RCV On	WWAN Active	802.11ac 160 Mhz	12.04	12.04	9.51	9.53
No Motion	Motion	WWAN Active	RCV On	802.11ac 160 Mhz	12.04	12.04	10.52	9.50

*Note: IEEE801.11ax and MIMO WIFI modes were not evaluated due to equipment limitations.

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the output power during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.



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Table G-8
Power Measurement Verification WIFI – Closed Configuration Antenna 1

Closed						
Mechanism(s)			Mode/Band	Conducted Powers (dBm)		
1st	2nd	3rd		mechanism #1	mechanism #2	mechanism #3
No Motion	Motion	WWAN Active	802.11b	14.29	14.29	10.26
No Motion	Motion	WWAN Active	802.11g	13.08	13.08	10.94
No Motion	Motion	WWAN Active	802.11n (2.4 GHz)	15.00	15.00	10.94
No Motion	Motion	WWAN Active	802.11a	15.00	15.00	10.12
No Motion	Motion	WWAN Active	802.11n 20 MHz	15.28	15.28	10.42
No Motion	Motion	WWAN Active	802.11n 40 MHz	15.17	15.17	10.83
No Motion	Motion	WWAN Active	802.11ac 20 Mhz	14.91	14.91	10.31
No Motion	Motion	WWAN Active	802.11ac 40 Mhz	15.38	15.38	10.51
No Motion	Motion	WWAN Active	802.11ac 80 Mhz	13.82	13.82	9.87
No Motion	Motion	WWAN Active	802.11ac 160 Mhz	12.12	12.12	10.46

*Note: IEEE801.11ax and MIMO WIFI modes were not evaluated due to equipment limitations.

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the output power during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.

Table G-9
Power Measurement Verification WIFI – Closed Configuration Antenna 2

Closed						
Mechanism(s)			Mode/Band	Conducted Powers (dBm)		
1st	2nd	3rd		mechanism #1	mechanism #2	mechanism #3
No Motion	Motion	WWAN Active	802.11b	13.66	13.66	10.34
No Motion	Motion	WWAN Active	802.11g	15.59	15.59	11.19
No Motion	Motion	WWAN Active	802.11n (2.4 GHz)	15.28	15.28	11.29
No Motion	Motion	WWAN Active	802.11a	14.34	14.34	9.98
No Motion	Motion	WWAN Active	802.11n 20 MHz	13.97	13.97	10.17
No Motion	Motion	WWAN Active	802.11n 40 MHz	13.65	13.65	10.48
No Motion	Motion	WWAN Active	802.11ac 20 Mhz	14.39	14.39	10.04
No Motion	Motion	WWAN Active	802.11ac 40 Mhz	14.06	14.06	10.48
No Motion	Motion	WWAN Active	802.11ac 80 Mhz	13.87	13.87	10.07
No Motion	Motion	WWAN Active	802.11ac 160 Mhz	12.04	12.04	10.52

*Note: IEEE801.11ax and MIMO WIFI modes were not evaluated due to equipment limitations.

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Table G-10
Power Measurement Verification WIFI – Read Configuration Antenna 1

Read						
Mechanism(s)			Mode/Band	Conducted Powers (dBm)		
1st	2nd	3rd		mechanism #1	mechanism #2	mechanism #3
No Motion	Motion	WWAN Active	802.11b	14.29	10.26	3.98
No Motion	Motion	WWAN Active	802.11g	13.08	10.94	4.24
No Motion	Motion	WWAN Active	802.11n (2.4 GHz)	15.00	10.94	3.92
No Motion	Motion	WWAN Active	802.11a	15.00	10.12	4.26
No Motion	Motion	WWAN Active	802.11n 20 MHz	15.28	10.42	4.37
No Motion	Motion	WWAN Active	802.11n 40 MHz	15.17	10.83	4.81
No Motion	Motion	WWAN Active	802.11ac 20 Mhz	14.91	10.31	4.21
No Motion	Motion	WWAN Active	802.11ac 40 Mhz	15.38	10.51	5.40
No Motion	Motion	WWAN Active	802.11ac 80 Mhz	13.82	9.87	5.86
No Motion	Motion	WWAN Active	802.11ac 160 Mhz	12.12	10.46	6.06

*Note: IEEE801.11ax and MIMO WIFI modes were not evaluated due to equipment limitations.

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Table G-11
Power Measurement Verification WIFI – Read Configuration Antenna 2

Read						
Mechanism(s)			Mode/Band	Conducted Powers (dBm)		
1st	2nd	3rd		mechanism #1	mechanism #2	mechanism #3
No Motion	Motion	WWAN Active	802.11b	13.66	10.34	3.76
No Motion	Motion	WWAN Active	802.11g	15.59	11.19	3.57
No Motion	Motion	WWAN Active	802.11n (2.4 GHz)	15.28	11.29	3.67
No Motion	Motion	WWAN Active	802.11a	14.34	9.98	3.85
No Motion	Motion	WWAN Active	802.11n 20 MHz	13.97	10.17	3.92
No Motion	Motion	WWAN Active	802.11n 40 MHz	13.65	10.48	4.46
No Motion	Motion	WWAN Active	802.11ac 20 Mhz	14.39	10.04	4.32
No Motion	Motion	WWAN Active	802.11ac 40 Mhz	14.06	10.48	5.96
No Motion	Motion	WWAN Active	802.11ac 80 Mhz	13.87	10.07	5.85
No Motion	Motion	WWAN Active	802.11ac 160 Mhz	12.04	10.52	6.99

*Note: IEEE801.11ax and MIMO WIFI modes were not evaluated due to equipment limitations.

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the output power during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.



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Table G-12
Power Measurement Verification WIFI – Flat Configuration Antenna 1

Flat								
Mechanism(s)				Mode/Band	Conducted Powers (dBm)			
1st	2nd	3rd	4th		mechanism #1	mechanism #2	mechanism #3	mechanism #4
No Motion	Motion	RCV On	WWAN Active	802.11b	14.29	3.98	14.23	14.18
No Motion	Motion	WWAN Active	RCV On	802.11b	14.29	4.13	2.00	14.29
No Motion	Motion	RCV On	WWAN Active	802.11g	13.08	4.14	13.02	13.08
No Motion	Motion	WWAN Active	RCV On	802.11g	13.08	4.30	2.29	12.87
No Motion	Motion	RCV On	WWAN Active	802.11n (2.4 GHz)	15.00	4.14	15.03	14.94
No Motion	Motion	WWAN Active	RCV On	802.11n (2.4 GHz)	15.00	4.04	-1.26	15.00
No Motion	Motion	RCV On	WWAN Active	802.11a	15.00	4.38	14.91	14.92
No Motion	Motion	WWAN Active	RCV On	802.11a	15.00	4.42	-0.85	15.00
No Motion	Motion	RCV On	WWAN Active	802.11n 20 MHz	15.28	4.55	15.16	15.13
No Motion	Motion	WWAN Active	RCV On	802.11n 20 MHz	15.28	4.48	-0.65	15.28
No Motion	Motion	RCV On	WWAN Active	802.11n 40 MHz	15.17	5.27	15.25	15.17
No Motion	Motion	WWAN Active	RCV On	802.11n 40 MHz	15.17	5.24	-0.90	15.16
No Motion	Motion	RCV On	WWAN Active	802.11ac 20 Mhz	14.91	5.32	15.21	14.79
No Motion	Motion	WWAN Active	RCV On	802.11ac 20 Mhz	14.91	5.62	-1.47	14.91
No Motion	Motion	RCV On	WWAN Active	802.11ac 40 Mhz	15.38	4.87	15.41	15.25
No Motion	Motion	WWAN Active	RCV On	802.11ac 40 Mhz	15.38	4.90	-1.08	15.38
No Motion	Motion	RCV On	WWAN Active	802.11ac 80 Mhz	13.82	5.91	13.66	13.63
No Motion	Motion	WWAN Active	RCV On	802.11ac 80 Mhz	13.82	5.97	-0.93	13.82
No Motion	Motion	RCV On	WWAN Active	802.11ac 160 Mhz	12.12	6.01	11.52	11.96
No Motion	Motion	WWAN Active	RCV On	802.11ac 160 Mhz	12.12	5.95	-0.22	12.12

*Note: IEEE801.11ax and MIMO WIFI modes were not evaluated due to equipment limitations.

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the output power during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.





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Table G-13
Power Measurement Verification WIFI – Flat Configuration Antenna 2

Flat								
Mechanism(s)				Mode/Band	Conducted Powers (dBm)			
1st	2nd	3rd	4th		mechanism #1	mechanism #2	mechanism #3	mechanism #4
No Motion	Motion	RCV On	WWAN Active	802.11b	13.66	3.75	9.12	8.95
No Motion	Motion	WWAN Active	RCV On	802.11b	13.66	3.89	1.80	8.99
No Motion	Motion	RCV On	WWAN Active	802.11g	15.59	3.46	9.97	10.03
No Motion	Motion	WWAN Active	RCV On	802.11g	15.59	3.60	1.57	10.03
No Motion	Motion	RCV On	WWAN Active	802.11n (2.4 GHz)	15.28	3.87	10.43	10.42
No Motion	Motion	WWAN Active	RCV On	802.11n (2.4 GHz)	15.28	3.77	1.83	10.28
No Motion	Motion	RCV On	WWAN Active	802.11a	14.34	4.08	9.05	8.95
No Motion	Motion	WWAN Active	RCV On	802.11a	14.34	3.99	-1.35	9.02
No Motion	Motion	RCV On	WWAN Active	802.11n 20 MHz	13.97	4.05	9.38	9.20
No Motion	Motion	WWAN Active	RCV On	802.11n 20 MHz	13.97	4.16	-1.02	9.24
No Motion	Motion	RCV On	WWAN Active	802.11n 40 MHz	13.65	5.97	9.43	9.33
No Motion	Motion	WWAN Active	RCV On	802.11n 40 MHz	13.65	6.00	-1.02	9.22
No Motion	Motion	RCV On	WWAN Active	802.11ac 20 Mhz	14.39	5.69	9.28	9.26
No Motion	Motion	WWAN Active	RCV On	802.11ac 20 Mhz	14.39	5.75	-1.01	9.33
No Motion	Motion	RCV On	WWAN Active	802.11ac 40 Mhz	14.06	5.22	9.18	9.85
No Motion	Motion	WWAN Active	RCV On	802.11ac 40 Mhz	14.06	5.42	-0.70	9.69
No Motion	Motion	RCV On	WWAN Active	802.11ac 80 Mhz	13.87	5.84	8.87	9.22
No Motion	Motion	WWAN Active	RCV On	802.11ac 80 Mhz	13.87	5.93	-0.77	8.92
No Motion	Motion	RCV On	WWAN Active	802.11ac 160 Mhz	12.04	6.89	9.51	9.53
No Motion	Motion	WWAN Active	RCV On	802.11ac 160 Mhz	12.04	6.98	-0.02	9.50

*Note: IEEE801.11ax and MIMO WIFI modes were not evaluated due to equipment limitations.

The device supports manufacturer's proprietary mechanism which can detect the motion of the device and then configure the output power during portable use scenarios. Details of this mechanism can be found in the Operational Description. When the device is being used near the user, the device will detect motion and reduce the output power. The motion detection operation was verified for on-body condition to represent conservative use cases for a handset device, including head and body-worn scenarios. The verification results are above.

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