

POWER REDUCTION VERIFICATION

This device supports the manufacturer’s proprietary power reduction mechanisms for cellular and Wi-Fi transmitters. Further details of the specific mechanisms for the Motion Detector can be found in the Operational Description (Motion Sensor).

A. Verification of Motion Detector mechanism was performed for the following test cases for cellular and Wi-Fi transmitters.

- On a stationary object (placed on a table)
- In-hand or on knee

B. Verification of power reduction levels for Wi-Fi were performed with cellular transmitters on and off.

C. Verification of RCV mechanism was performed with cellular and Wi-Fi transmitters.

D. Verification of Hotspot power reduction was performed with cellular transmitters.

The verification plan consists of measuring the power levels of the cellular and Wi-Fi transmitters under different operating conditions related to the power reduction mechanisms.

For testing purposes the device was measured against each Index supported for the cellular and Wi-Fi technologies. The target power level and measured power levels are detailed in the following table and clearly shows that each power reduction mechanism operates as expected.

Technology	Band	Antenna	Stationary		Head (Receiver ON)				Body (Motion Sensor ON)				Hotspot (Hotspot Mode ON)	
			Target Power	Measured Power	Wi-Fi / BT / Thread OFF		Wi-Fi / BT / Thread ON		Wi-Fi / BT / Thread OFF		Wi-Fi / BT / Thread ON		Wi-Fi / BT Tethering ON	
					Target Power	Measured Power	Target Power	Measured Power	Target Power	Measured Power	Target Power	Measured Power	Target Power	Measured Power
GSM	850	ANT1	30.3	28.79	27.7	26.6	27	25.77	29.2	28.11	28.5	27.4	28.5	27.42
UMTS	B2	ANT0	25.5	24.51	25.5	24.81	25.5	24.9	19.5	19.13	18.8	18.33	16	14.55
LTE	B66	ANT0	25	24.3	25	24.57	25	24.58	18	17.22	17.3	16.55	17.3	16.54
LTE	B48	ANT6	23.1	22.55	23.1	22.6	23.1	22.63	23.1	22.56	23.1	22.05	23.1	21.95
FR1	n7	ANT2	25	24.9	24.7	22.84	24	22.17	22.2	22.16	21.5	21.45	21.5	21.45

Technology	Mode	Antenna	Stationary		Head (Receiver ON)				Body (Motion Sensor ON)			
			Target Power	Measured Power	WWAN OFF		WWAN ON		WWAN OFF		WWAN ON	
					Target Power	Measured Power	Target Power	Measured Power	Target Power	Measured Power	Target Power	Measured Power
Wi-Fi 2.4 GHz	802.11b	ANT3	22.5	21.43	17	15.13	13.5	11.68	22.5	20.2	18	17.3
Wi-Fi 5.8 GHz	802.11a	ANT4	22	17.59	16.5	15.51	9.4	8.75	19	17.59	14.5	14.05