Appendix F. Supplemental SAR Tests Results

SAR test result

1. The test data is selected according to the worst case SAR configuration per cellular technology.
2. The test data is to demonstrate the device is in compliance with FCC requirements at 25mm when all power reduction mechanisms are OFF. The worst case body SAR at 10mm was used for simultaneous transmission SAR analysis since they are more conservative than the 25mm SAR.

Band	Mode	Test Position	Gap (mm)	Antenna	SKU	Brick / Gun Type	Battery	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Measured APD (W/m^2)	Reported APD (W/m^2)
WLAN2.4GHz	802.11b 1Mbps	Right Side	25mm	Ant 6+7(6)	SKU 13	Brick	1	Index 0	1	2412	19.98	20.50	97.87	1.022	0.03	0.185	0.213		
WLAN2.4GHz	802.11b 1Mbps	Right Side	25mm	Ant 6+7(6)	SKU 9	Gun	1	Index 0	1	2412	19.98	20.50	97.87	1.022	-0.04	0.100	0.115		
WLAN5GHz	802.11a 6Mbps	Left Side	25mm	Ant 6+7(6)	SKU 13	Brick	1	Index 0	165	5825	21.20	22.00	100	1.000	-0.08	0.855	1.028		
WLAN5GHz	802.11a 6Mbps	Left Side	25mm	Ant 6+7(6)	SKU 9	Gun	1	Index 0	165	5825	21.20	22.00	100	1.000	-0.06	0.865	1.040		
WLAN6GHz	802.11ax-HE160 MCS0	Left Side	25mm	Ant 6+7(7)	SKU 13	Brick	1	Index 0	47	6185	16.70	17.00	98.19	1.018	-0.07	0.305	0.333	2.830	3.087
WLAN6GHz	802.11ax-HE160 MCS0	Left Side	25mm	Ant 6+7(7)	SKU 9	Gun	1	Index 0	47	6185	16.70	17.00	98.19	1.018	-0.17	0.332	0.362	3.080	3.360

Appendix F. Power reduction mechanism verification

1. Motion Time vs Power verification

a) Body Detect mechanism will be performed for the in-hand and on a stationary object (placed on a table).
b) Verify the functionality of the motion sensor by measuring the output power in the following steps.

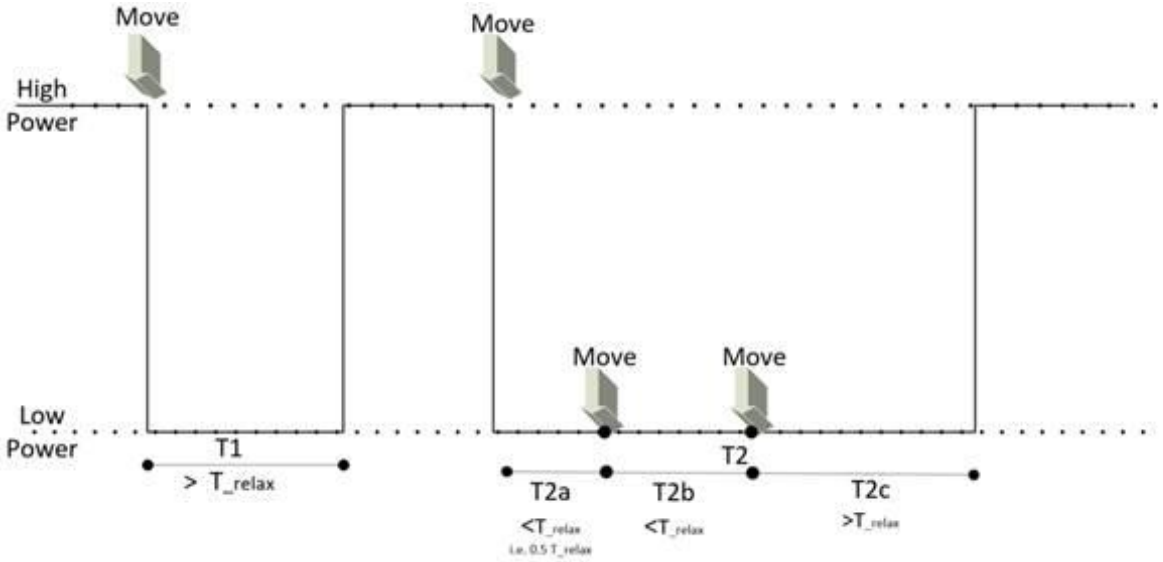

Figure 1 Illustration of the procedure for the validation of the power reduction

The device is embedded with motion sensors only, no proximity sensors are installed.

1. **Placed on a table:** Make the DUT transmit with the maximum output power by using a base station simulator.
a) Confirm that motion sensor is not triggered by letting the DUT remain stationary with no movements for the period T_{relax} for the motion sensor to reach stationary state.
b) Record P_{step1} (high power)
2. **In-hand:** Move the DUT to trigger the motion sensor. Apply the motion of the DUT with respect to movements in intended and reasonably foreseeable use conditions of the DUT.
a) Record P_{step2} (low power)
3. For the validation of T_{relax}, wait a time period $T_1 > T_{relax}$ and confirm DUT restores to high power (P_{step1}).
4. Move the DUT to trigger the motion sensor.
5. Move DUT within T_{relax} to ensure T_{relax} resets when DUT is in motion.
DUT can be moved once or twice within T_{relax}, (after time periods T_{2a} and T_{2b} in Figure 1.) followed by waiting for a time period greater than T_{relax} (time period T_{2c} in Figure 1.) for DUT to restore high power. The total time duration of this step is T_2, and the power during the whole period T_2 shall be reduced (low power – P_{step2}).

Exposure Condition		Output Power (data connection) (dBm)											
		Stationary Placed on a table		In hand		Stationary Placed on a table		In hand				Stationary Placed on a table	
Power state		Full Power P_{step1}		Low Power P_{step2}		Full Power P_{step1} & T_1 > T_{relax}		Low Power P_{step2} & T_{2a} < T_{relax}		Low Power P_{step2} & T_{2b} < T_{relax}		Full Power P_{step1} & T_{2c} > T_{relax}	
Wireless technology	Antenna	Measured	Max. Tune-up	Measured	Max. Tune-up	Measured	Max. Tune-up	Measured	Max. Tune-up	Measured	Max. Tune-up	Measured	Max. Tune-up
802.11a 6Mbps ,CH116	(Ant6+7) Ant 6	17.8	19.0± 1.5dB	17.6	17.0± 1.5dB	17.9	19.0± 1.5dB	17.5	17.0± 1.5dB	17.6	17.0± 1.5dB	17.9	19.0± 1.5dB
	(Ant6+7) Ant 7	17.9	19.0± 1.5dB	17.5	17.0± 1.5dB	17.9	19.0± 1.5dB	17.5	17.0± 1.5dB	17.5	17.0± 1.5dB	17.9	19.0± 1.5dB

Exposure Condition		Output Power (data connection) (dBm)			
		Display on Stationary Placed on a table		Display off	
Power state		Full Power P_{step1}		Low Power P_{step2}	
Wireless technology	Antenna	Measured	Max. Tune-up	Measured	Max. Tune-up
802.11a 6Mbps ,CH116	(Ant6+7)Ant 6	17.8	19.0±1.5dB	17.6	17.0±1.5dB
	(Ant6+7)Ant 7	17.9	19.0±1.5dB	17.5	17.0±1.5dB