

Table 10.1.5 UNII Head APD

FREQUENCY		MEASUREMENT RESULTS												
MHz	Ch	Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Data Rate [Mbps]	Duty Cycle	APD [W/m² (4cm²)]	Scaling Factor	Scaling Factor (Duty Cycle)	Scaled APD (Reported APD) [W/m² (4cm²)]	Plots #
6 025.0	15	802.11ax (Ant.8)	10.00	9.56	0.140	Left Touch	FCC #2	MCS0	99.1	0.608	1.107	1.009	0.679	
6 345.0	79	802.11ax (Ant.8)	9.00	8.95	0.090	Left Touch	FCC #2	MCS0	99.1	0.654	1.012	1.009	0.668	
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	0.180	Left Touch	FCC #2	MCS0	99.1	0.737	1.047	1.009	0.779	A13
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.160	Left Touch	FCC #2	MCS0	99.1	0.652	1.091	1.009	0.718	
6 985.0	207	802.11ax (Ant.8)	10.00	9.27	0.000	Left Touch	FCC #2	MCS0	99.1	0.214	1.183	1.009	0.255	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	Right Touch	FCC #2	MCS0	99.1	0.307	1.091	1.009	0.338	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	Left Tilt	FCC #2	MCS0	99.1	0.361	1.091	1.009	0.397	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	Right Tilt	FCC #2	MCS0	99.1	0.161	1.091	1.009	0.177	
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	0.130	Left Touch	FCC #2	MCS0	99.1	0.612	1.047	1.009	0.647	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	Left Touch	FCC #2	MCS0	99.1	0.372	1.005	1.009	0.377	
6 025.0	15	802.11ax (Ant.9)	10.00	8.98	0.000	Right Touch	FCC #2	MCS0	99.1	0.796	1.265	1.009	1.016	
6 345.0	79	802.11ax (Ant.9)	10.00	9.88	0.150	Right Touch	FCC #2	MCS0	99.1	0.571	1.028	1.009	0.592	
6 505.0	111	802.11ax (Ant.9)	10.00	9.87	0.000	Right Touch	FCC #2	MCS0	99.1	0.525	1.030	1.009	0.546	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	Right Touch	FCC #2	MCS0	99.1	0.879	1.005	1.009	0.891	
6 985.0	207	802.11ax (Ant.9)	10.00	9.86	0.000	Right Touch	FCC #2	MCS0	99.1	1.170	1.033	1.009	1.220	A14
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	Left Tilt	FCC #2	MCS0	99.1	0.221	1.005	1.009	0.224	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	Right Tilt	FCC #2	MCS0	99.1	0.271	1.005	1.009	0.275	
6 985.0	207	802.11ax (Ant.9)	10.00	9.86	0.120	Right Touch	FCC #2	MCS0	99.1	1.130	1.033	1.009	1.178	
6 025.0	15	802.11ax (MIMO)	13.01	12.29	-0.180	Left Touch	FCC #2	MCS0	98.1	0.606	1.265	1.019	0.781	
6 345.0	79	802.11ax (MIMO)	12.54	12.45	0.140	Left Touch	FCC #2	MCS0	98.1	0.777	1.028	1.019	0.814	A15
6 505.0	111	802.11ax (MIMO)	12.54	12.38	0.160	Left Touch	FCC #2	MCS0	98.1	0.757	1.047	1.019	0.808	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	0.000	Left Touch	FCC #2	MCS0	98.1	0.640	1.091	1.019	0.712	
6 985.0	207	802.11ax (MIMO)	13.01	12.59	0.000	Left Touch	FCC #2	MCS0	98.1	0.324	1.183	1.019	0.391	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	0.000	Right Touch	FCC #2	MCS0	98.1	0.248	1.091	1.019	0.276	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	0.000	Left Tilt	FCC #2	MCS0	98.1	0.448	1.091	1.019	0.498	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	0.000	Right Tilt	FCC #2	MCS0	98.1	0.176	1.091	1.019	0.196	
6 345.0	79	802.11ax (MIMO)	12.54	12.45	0.000	Left Touch	FCC #2	MCS0	98.1	0.710	1.028	1.019	0.744	

Note(s):

1. Blue entries represent Extended Battery measurements.

2. APD (Absorbed Power Density) over 4 cm² averaging area is reported based on SAR measurements.

3. 10 W/m² = 1.0 mW/cm²

Table 10.1.6 Bluetooth/Bluetooth LE Head SAR

FREQUENCY		MEASUREMENT RESULTS												
MHz	Ch	Mode (Module)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (Reported SAR) (W/kg)	Plots #
2 441.0	39	BT (Ant.8)	5.00	4.90	0.090	Left Touch	FCC #2	1	76.8	0.055	1.023	1.302	0.073	A16
2 441.0	39	BT (Ant.8)	5.00	4.90	0.170	Right Touch	FCC #2	1	76.8	0.047	1.023	1.302	0.063	
2 441.0	39	BT (Ant.8)	5.00	4.90	0.060	Left Tilt	FCC #2	1	76.8	0.045	1.023	1.302	0.060	
2 441.0	39	BT (Ant.8)	5.00	4.90	-0.180	Right Tilt	FCC #2	1	76.8	0.038	1.023	1.302	0.051	
2 441.0	39	BT (Ant.8)	5.00	4.90	0.120	Left Touch	FCC #2	1	76.8	0.050	1.023	1.302	0.067	
2 440.0	19	BLE(Ant.8)	5.00	4.90	0.050	Left Touch	FCC #2	1	85.2	0.054	1.023	1.174	0.065	A17
2 440.0	19	BLE(Ant.8)	5.00	4.90	0.110	Right Touch	FCC #2	1	85.2	0.047	1.023	1.174	0.056	
2 440.0	19	BLE(Ant.8)	5.00	4.90	0.180	Left Tilt	FCC #2	1	85.2	0.051	1.023	1.174	0.061	
2 440.0	19	BLE(Ant.8)	5.00	4.90	0.020	Right Tilt	FCC #2	1	85.2	0.036	1.023	1.174	0.043	
2 440.0	19	BLE(Ant.8)	5.00	4.90	0.170	Left Touch	FCC #2	1	85.2	0.054	1.023	1.174	0.065	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note: Blue entries represent Extended Battery measurements.

10.2 Body-Worn SAR and APD (Absorbed Power Density) Results

Table 10.2.1 DTS Body-Worn SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (Reported SAR) (W/kg)	Plots #
MHz	Ch														
2 437.0	6	802.11b (Ant.8)	15.50	15.45	0.190	15 mm [Front]	FCC #2	0.040	1	98.1	0.039	1.012	1.019	0.040	A18
2 437.0	6	802.11b (Ant.8)	15.50	15.45	-0.000	15 mm [Rear]	FCC #2	0.062	1	98.1	0.058	1.012	1.019	0.060	
2 437.0	6	802.11b (Ant.8)	15.50	15.45	0.040	15 mm [Rear]	FCC #2	0.045	1	98.1	0.041	1.012	1.019	0.042	
2 437.0	6	802.11b (Ant.9)	16.70	16.66	0.160	15 mm [Front]	FCC #2	0.037	1	98.1	0.037	1.009	1.019	0.038	A19
2 437.0	6	802.11b (Ant.9)	16.70	16.66	-0.110	15 mm [Rear]	FCC #2	0.142	1	98.1	0.139	1.009	1.019	0.143	
2 437.0	6	802.11b (Ant.9)	16.70	16.66	0.130	15 mm [Rear]	FCC #2	0.102	1	98.1	0.097	1.009	1.019	0.100	
2 437.0	6	802.11ac (MIMO)	17.71	17.62	0.150	15 mm [Front]	FCC #2	0.063	MCS0	99.0	0.058	1.021	1.010	0.060	A20
2 437.0	6	802.11ac (MIMO)	17.71	17.62	0.080	15 mm [Rear]	FCC #2	0.118	MCS0	99.0	0.118	1.021	1.010	0.122	
2 437.0	6	802.11ac (MIMO)	17.71	17.62	0.150	15 mm [Rear]	FCC #2	0.086	MCS0	99.0	0.087	1.021	1.010	0.090	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note: Blue entries represent Extended Battery measurements.

Adjusted SAR results for OFDM SAR													
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm]	Ratio of OFDM to DSSS	1g Adjusted SAR (W/kg)	Determine OFDM SAR	
MHz	Ch												
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.060	2 437.0	802.11g	OFDM	15.00	0.891	0.053		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.060	2 437.0	802.11n (VHT20)	OFDM	14.50	0.794	0.048		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.060	2 437.0	802.11ac (VHT20)	OFDM	14.50	0.794	0.048		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.060	2 437.0	802.11n (VHT40)	OFDM	14.50	0.794	0.048		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.060	2 437.0	802.11ac (VHT40)	OFDM	14.70	0.832	0.050		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.060	2 437.0	802.11ax (HE20)	OFDM	12.50	0.501	0.030		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.060	2 437.0	802.11ax (HE40)	OFDM	12.50	0.501	0.030		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.143	2 437.0	802.11g	OFDM	16.50	0.955	0.137		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.143	2 437.0	802.11n (VHT20)	OFDM	14.50	0.603	0.086		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.143	2 437.0	802.11ac (VHT20)	OFDM	14.50	0.603	0.086		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.143	2 437.0	802.11n (VHT40)	OFDM	14.50	0.603	0.086		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.143	2 437.0	802.11ac (VHT40)	OFDM	14.70	0.631	0.090		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.143	2 437.0	802.11ax (HE20)	OFDM	14.00	0.537	0.077		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.143	2 437.0	802.11ax (HE40)	OFDM	14.00	0.537	0.077		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.122	2 437.0	802.11n (VHT20)	OFDM	17.51	0.955	0.117		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.122	2 437.0	802.11ac (VHT20)	OFDM	17.51	0.955	0.117		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.122	2 437.0	802.11n (VHT40)	OFDM	17.51	0.955	0.117		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.122	2 437.0	802.11ax (HE20)	OFDM	16.32	0.726	0.089		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.122	2 437.0	802.11ax (HE40)	OFDM	16.32	0.726	0.089		X
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Head 1.6 W/kg (mW/g) averaged over 1 gram							

Note: SAR is not required for the following 2.4 GHz OFDM conditions. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Table 10.2.2 UNII Body-Worn SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (Reported SAR) (W/kg)	Plots #	
MHz	Ch															
5 270.0	54	802.11n (Ant.8)	14.50	14.46	-0.160	15 mm [Front]	FCC #2	0.114	MCS0	99.2	0.117	1.009	1.008	0.119	A21	
5 270.0	54	802.11n (Ant.8)	14.50	14.46	0.040	15 mm [Rear]	FCC #2	0.263	MCS0	99.2	0.253	1.009	1.008	0.257		
5 270.0	54	802.11n (Ant.8)	14.50	14.46	0.050	15 mm [Rear]	FCC #2	0.238	MCS0	99.2	0.190	1.009	1.008	0.193		
5 270.0	54	802.11n (Ant.9)	14.50	14.43	0.000	15 mm [Front]	FCC #2	0.003	MCS0	99.2	0.002	1.016	1.008	0.002	A22	
5 270.0	54	802.11n (Ant.9)	14.50	14.43	0.090	15 mm [Rear]	FCC #2	0.138	MCS0	99.2	0.147	1.016	1.008	0.151		
5 270.0	54	802.11n (Ant.9)	14.50	14.43	0.130	15 mm [Rear]	FCC #2	0.137	MCS0	99.2	0.129	1.016	1.008	0.132		
5 270.0	54	802.11n (MIMO)	17.51	17.46	-0.120	15 mm [Front]	FCC #2	0.149	MCS0	99.2	0.132	1.016	1.008	0.135	A23	
5 270.0	54	802.11n (MIMO)	17.51	17.46	-0.000	15 mm [Rear]	FCC #2	0.256	MCS0	99.2	0.252	1.016	1.008	0.258		
5 270.0	54	802.11n (MIMO)	17.51	17.46	-0.150	15 mm [Rear]	FCC #2	0.219	MCS0	99.2	0.218	1.016	1.008	0.223		
ANSI / IEEE C95.1-2005- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note: Blue entries represent Extended Battery measurements.

Adjusted SAR results for UNII-1 and UNII-2A SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm]	Adjusted Factor	1g Adjusted SAR (W/kg)	SAR for the band with lower maximum output power
MHz	Ch											
5 270.0	54	802.11n (Ant.8)	OFDM	14.50	0.257	5 240.0	802.11n	OFDM	14.50	1.000	0.257	X
5 270.0	54	802.11n (Ant.9)	OFDM	14.50	0.151	5 220.0	802.11n	OFDM	14.50	1.000	0.151	X
5 270.0	54	802.11n (MIMO)	OFDM	17.51	0.258	5 220.0	802.11n	OFDM	17.51	1.000	0.258	X
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note: U-NII-1 and U-NII-2A Bands: When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

Table 10.2.3 UNII Body-Worn SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (Reported SAR) (W/kg)	Plots #	
MHz	Ch															
5 510.0	102	802.11n (Ant.8)	14.00	13.90	-0.190	15 mm [Front]	FCC #2	0.125	MCS0	99.2	0.122	1.023	1.008	0.126	A24	
5 510.0	102	802.11n (Ant.8)	14.00	13.90	-0.020	15 mm [Rear]	FCC #2	0.284	MCS0	99.2	0.282	1.023	1.008	0.291		
5 510.0	102	802.11n (Ant.8)	14.00	13.90	-0.050	15 mm [Rear]	FCC #2	0.197	MCS0	99.2	0.204	1.023	1.008	0.210		
5 510.0	102	802.11n (Ant.9)	14.00	13.89	-0.180	15 mm [Front]	FCC #2	0.030	MCS0	99.2	0.017	1.026	1.008	0.018	A25	
5 510.0	102	802.11n (Ant.9)	14.00	13.89	-0.020	15 mm [Rear]	FCC #2	0.181	MCS0	99.2	0.182	1.026	1.008	0.188		
5 510.0	102	802.11n (Ant.9)	14.00	13.89	-0.090	15 mm [Rear]	FCC #2	0.158	MCS0	99.2	0.166	1.026	1.008	0.172		
5 510.0	102	802.11n (MIMO)	17.01	16.91	-0.050	15 mm [Front]	FCC #2	0.127	MCS0	99.2	0.126	1.026	1.008	0.130	A26	
5 510.0	102	802.11n (MIMO)	17.01	16.91	-0.040	15 mm [Rear]	FCC #2	0.275	MCS0	99.2	0.281	1.026	1.008	0.291		
5 510.0	102	802.11n (MIMO)	17.01	16.91	-0.110	15 mm [Rear]	FCC #2	0.238	MCS0	99.2	0.241	1.026	1.008	0.249		
5 755.0	151	802.11n (Ant.8)	14.00	13.93	-0.080	15 mm [Front]	FCC #2	0.129	MCS0	99.2	0.131	1.016	1.008	0.134	A27	
5 755.0	151	802.11n (Ant.8)	14.00	13.93	0.000	15 mm [Rear]	FCC #2	0.289	MCS0	99.2	0.299	1.016	1.008	0.306		
5 755.0	151	802.11n (Ant.8)	14.00	13.93	-0.050	15 mm [Rear]	FCC #2	0.200	MCS0	99.2	0.216	1.016	1.008	0.221		
5 755.0	151	802.11n (Ant.9)	14.00	13.31	0.080	15 mm [Front]	FCC #2	0.034	MCS0	99.2	0.016	1.172	1.008	0.019	A28	
5 755.0	151	802.11n (Ant.9)	14.00	13.31	-0.150	15 mm [Rear]	FCC #2	0.198	MCS0	99.2	0.209	1.172	1.008	0.247		
5 755.0	151	802.11n (Ant.9)	14.00	13.31	-0.140	15 mm [Rear]	FCC #2	0.169	MCS0	99.2	0.173	1.172	1.008	0.204		
5 755.0	151	802.11n (MIMO)	17.01	16.64	0.040	15 mm [Front]	FCC #2	0.126	MCS0	99.2	0.120	1.172	1.008	0.142	A29	
5 755.0	151	802.11n (MIMO)	17.01	16.64	-0.020	15 mm [Rear]	FCC #2	0.279	MCS0	99.2	0.294	1.172	1.008	0.347		
5 755.0	151	802.11n (MIMO)	17.01	16.64	-0.120	15 mm [Rear]	FCC #2	0.242	MCS0	99.2	0.255	1.172	1.008	0.301		
ANSI / IEEE C95.1-1992- SAFETY LIMIT																
Spatial Peak																
Uncontrolled Exposure/General Population Exposure																
Body 1.6 W/kg (mW/g) averaged over 1 gram																

Note: Blue entries represent Extended Battery measurements.

Table 10.2.4 UNII Body-Worn SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (Reported SAR) (W/kg)	Plots #
MHz	Ch														
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	15 mm [Front]	FCC #2	0.017	MCS0	99.1	0.022	1.091	1.009	0.024	A30
6 025.0	15	802.11ax (Ant.8)	10.00	9.56	-0.160	15 mm [Rear]	FCC #2	0.031	MCS0	99.1	0.039	1.107	1.009	0.044	
6 345.0	79	802.11ax (Ant.8)	9.00	8.95	-0.150	15 mm [Rear]	FCC #2	0.045	MCS0	99.1	0.050	1.012	1.009	0.051	
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	0.060	15 mm [Rear]	FCC #2	0.054	MCS0	99.1	0.060	1.047	1.009	0.063	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	15 mm [Rear]	FCC #2	0.033	MCS0	99.1	0.035	1.091	1.009	0.039	
6 985.0	207	802.11ax (Ant.8)	10.00	9.27	0.000	15 mm [Rear]	FCC #2	0.009	MCS0	99.1	0.021	1.183	1.009	0.025	
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	0.000	15 mm [Rear]	FCC #2	0.043	MCS0	99.1	0.046	1.047	1.009	0.049	A31
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	15 mm [Front]	FCC #2	0.010	MCS0	99.1	0.021	1.005	1.009	0.021	
6 025.0	15	802.11ax (Ant.9)	10.00	8.98	0.030	15 mm [Rear]	FCC #2	0.052	MCS0	99.1	0.065	1.265	1.009	0.083	
6 345.0	79	802.11ax (Ant.9)	10.00	9.88	0.000	15 mm [Rear]	FCC #2	0.026	MCS0	99.1	0.039	1.028	1.009	0.040	
6 505.0	111	802.11ax (Ant.9)	10.00	9.87	0.000	15 mm [Rear]	FCC #2	0.038	MCS0	99.1	0.045	1.030	1.009	0.047	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	15 mm [Rear]	FCC #2	0.036	MCS0	99.1	0.050	1.005	1.009	0.051	
6 985.0	207	802.11ax (Ant.9)	10.00	9.86	0.000	15 mm [Rear]	FCC #2	0.052	MCS0	99.1	0.064	1.033	1.009	0.067	A32
6 025.0	15	802.11ax (Ant.9)	10.00	9.86	0.110	15 mm [Rear]	FCC #2	0.039	MCS0	99.1	0.054	1.033	1.009	0.056	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	0.000	15 mm [Front]	FCC #2	0.013	MCS0	98.1	0.026	1.091	1.019	0.029	
6 025.0	15	802.11ax (MIMO)	13.01	12.29	0.120	15 mm [Rear]	FCC #2	0.061	MCS0	98.1	0.073	1.265	1.019	0.094	
6 345.0	79	802.11ax (MIMO)	12.54	12.45	-0.020	15 mm [Rear]	FCC #2	0.053	MCS0	98.1	0.063	1.028	1.019	0.066	
6 505.0	111	802.11ax (MIMO)	12.54	12.38	0.110	15 mm [Rear]	FCC #2	0.069	MCS0	98.1	0.080	1.047	1.019	0.085	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	0.000	15 mm [Rear]	FCC #2	0.024	MCS0	98.1	0.050	1.091	1.019	0.056	A33
6 985.0	207	802.11ax (MIMO)	13.01	12.59	-0.110	15 mm [Rear]	FCC #2	0.059	MCS0	98.1	0.073	1.183	1.019	0.088	
6 025.0	15	802.11ax (MIMO)	13.01	12.29	0.000	15 mm [Rear]	FCC #2	0.031	MCS0	99.1	0.029	1.265	1.009	0.037	
ANSI / IEEE C95.1-2005- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note: Blue entries represent Extended Battery measurements.

Table 10.2.5 UNII Body-Worn APD

Table 10.2.3 OnM Body-worn APD															
FREQUENCY		MEASUREMENT RESULTS													
MHz	Ch	Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Data Rate [Mbps]	Duty Cycle	APD [W/m² (4cm²)]	Scaling Factor	Scaling Factor (Duty Cycle)	Scaled APD (Reported APD) [W/m² (4cm²)]	Plots #	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	15 mm [Front]	FCC #2	MCS0	99.1	0.217	1.091	1.009	0.239	A30	
6 025.0	15	802.11ax (Ant.8)	10.00	9.56	-0.160	15 mm [Rear]	FCC #2	MCS0	99.1	0.351	1.107	1.009	0.392		
6 345.0	79	802.11ax (Ant.8)	9.00	8.95	-0.150	15 mm [Rear]	FCC #2	MCS0	99.1	0.436	1.012	1.009	0.445		
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	0.060	15 mm [Rear]	FCC #2	MCS0	99.1	0.532	1.047	1.009	0.562		
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	15 mm [Rear]	FCC #2	MCS0	99.1	0.315	1.091	1.009	0.347		
6 985.0	207	802.11ax (Ant.8)	10.00	9.27	0.000	15 mm [Rear]	FCC #2	MCS0	99.1	0.184	1.183	1.009	0.220		
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	0.000	15 mm [Rear]	FCC #2	MCS0	98.1	0.430	1.047	1.019	0.459	A31	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	15 mm [Front]	FCC #2	MCS0	99.1	0.193	1.005	1.009	0.196		
6 025.0	15	802.11ax (Ant.9)	10.00	8.98	0.030	15 mm [Rear]	FCC #2	MCS0	99.1	0.556	1.265	1.009	0.710		
6 345.0	79	802.11ax (Ant.9)	10.00	9.88	0.000	15 mm [Rear]	FCC #2	MCS0	99.1	0.361	1.028	1.009	0.374		
6 505.0	111	802.11ax (Ant.9)	10.00	9.87	0.000	15 mm [Rear]	FCC #2	MCS0	99.1	0.390	1.030	1.009	0.405		
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	15 mm [Rear]	FCC #2	MCS0	99.1	0.417	1.005	1.009	0.423		
6 985.0	207	802.11ax (Ant.9)	10.00	9.86	0.000	15 mm [Rear]	FCC #2	MCS0	99.1	0.539	1.033	1.009	0.562	A32	
6 025.0	15	802.11ax (Ant.9)	10.00	8.98	0.110	15 mm [Rear]	FCC #2	MCS0	99.1	0.474	1.265	1.009	0.605		
6 665.0	143	802.11ax (MIMO)	13.01	12.81	0.000	15 mm [Front]	FCC #2	MCS0	98.1	0.191	1.091	1.019	0.212		
6 025.0	15	802.11ax (MIMO)	13.01	12.29	0.120	15 mm [Rear]	FCC #2	MCS0	98.1	0.640	1.265	1.019	0.825		
6 345.0	79	802.11ax (MIMO)	12.54	12.45	-0.020	15 mm [Rear]	FCC #2	MCS0	98.1	0.588	1.028	1.019	0.616		
6 505.0	111	802.11ax (MIMO)	12.54	12.38	0.110	15 mm [Rear]	FCC #2	MCS0	98.1	0.725	1.047	1.019	0.774		
6 665.0	143	802.11ax (MIMO)	13.01	12.81	0.000	15 mm [Rear]	FCC #2	MCS0	98.1	0.417	1.091	1.019	0.464	A33	
6 985.0	207	802.11ax (MIMO)	13.01	12.59	-0.110	15 mm [Rear]	FCC #2	MCS0	98.1	0.605	1.183	1.019	0.730		
6 025.0	15	802.11ax (MIMO)	13.01	12.29	0.000	15 mm [Rear]	FCC #2	MCS0	99.1	0.366	1.265	1.009	0.340		
6 345.0	79	802.11ax (MIMO)	12.54	12.45	-0.020	15 mm [Rear]	FCC #2	MCS0	98.1	0.588	1.028	1.019	0.616		

Note(s):
1. Blue entries represent Extended Battery measurements.
2. APD (Absorbed Power Density) over 4 cm²: averaging area is reported based on SAR measurements.
3. 10 W/m² = 1.0 mW/cm²

Table 10.2.6 Bluetooth/Bluetooth LE Body-Worn SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode (Module)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (Reported SAR) (W/kg)	Plot s #
MHz	Ch													
2 441.0	39	BT (Ant.8)	5.00	4.90	0.130	15 mm [Front]	FCC #2	1	76.8	0.005	1.023	1.302	0.007	
2 441.0	39	BT (Ant.8)	5.00	4.90	0.160	15 mm [Rear]	FCC #2	1	76.8	0.010	1.023	1.302	0.013	A33
2 441.0	39	BT (Ant.8)	5.00	4.90	0.060	15 mm [Rear]	FCC #2	1	76.8	0.006	1.023	1.302	0.008	
2 440.0	19	BLE(Ant.8)	5.00	4.90	0.070	15 mm [Front]	FCC #2	1	85.2	0.004	1.023	1.174	0.005	
2 440.0	19	BLE(Ant.8)	5.00	4.90	0.120	15 mm [Rear]	FCC #2	1	85.2	0.011	1.023	1.174	0.013	A34
2 440.0	19	BLE(Ant.8)	5.00	4.90	-0.190	15 mm [Rear]	FCC #2	1	85.2	0.006	1.023	1.174	0.007	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram						

10.3 Phablet SAR and APD (Absorbed Power Density) Results

Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required when Hotspot 1g SAR (scaled to maximum output power including tolerance) < 1.2 W/kg.

Table 10.3.1 DTS Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR [W/kg]	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (Reported SAR) [W/kg]	Plots #
MHz	Ch														
2 437.0	6	802.11b (Ant.8)	15.50	15.45	-0.010	0 mm [Top]	FCC #2	0.202	1	98.1	0.201	1.012	1.019	0.207	A35
2 437.0	6	802.11b (Ant.8)	15.50	15.45	-0.080	0 mm [Front]	FCC #2	0.194	1	98.1	0.196	1.012	1.019	0.202	
2 437.0	6	802.11b (Ant.8)	15.50	15.45	0.070	0 mm [Rear]	FCC #2	0.207	1	98.1	0.155	1.012	1.019	0.160	
2 437.0	6	802.11b (Ant.8)	15.50	15.45	0.180	0 mm [Right]	FCC #2	0.385	1	98.1	0.322	1.012	1.019	0.332	
2 437.0	6	802.11b (Ant.8)	15.50	15.45	-0.150	0 mm [Right]	FCC #2	0.369	1	98.1	0.310	1.012	1.019	0.320	A36
2 437.0	6	802.11b (Ant.9)	16.70	16.66	0.030	0 mm [Top]	FCC #2	0.013	1	98.1	0.008	1.009	1.019	0.008	
2 437.0	6	802.11b (Ant.9)	16.70	16.66	-0.030	0 mm [Front]	FCC #2	0.112	1	98.1	0.099	1.009	1.019	0.102	
2 437.0	6	802.11b (Ant.9)	16.70	16.66	-0.020	0 mm [Rear]	FCC #2	0.260	1	98.1	0.263	1.009	1.019	0.271	
2 437.0	6	802.11b (Ant.9)	16.70	16.66	-0.140	0 mm [Left]	FCC #2	0.401	1	98.1	0.369	1.009	1.019	0.380	
2 437.0	6	802.11b (Ant.9)	16.70	16.66	0.030	0 mm [Left]	FCC #2	0.391	1	98.1	0.368	1.009	1.019	0.379	A37
2 437.0	6	802.11g (MIMO)	17.71	17.62	-0.050	0 mm [Top]	FCC #2	0.161	1	99.0	0.154	1.021	1.010	0.159	
2 437.0	6	802.11g (MIMO)	17.71	17.62	-0.070	0 mm [Front]	FCC #2	0.152	1	99.0	0.143	1.021	1.010	0.147	
2 437.0	6	802.11g (MIMO)	17.71	17.62	0.190	0 mm [Rear]	FCC #2	0.205	1	99.0	0.191	1.021	1.010	0.197	
2 437.0	6	802.11g (MIMO)	17.71	17.62	-0.110	0 mm [Right]	FCC #2	0.233	1	99.0	0.238	1.021	1.010	0.245	
2 437.0	6	802.11g (MIMO)	17.71	17.62	-0.190	0 mm [Left]	FCC #2	0.272	1	99.0	0.264	1.021	1.010	0.272	A37
2 437.0	6	802.11g (MIMO)	17.71	17.62	0.120	0 mm [Left]	FCC #2	0.298	1	99.0	0.262	1.021	1.010	0.270	
ANSI / IEEE C95.1-1992- SAFETY LIMIT															
Spatial Peak															
Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram							

Note: Blue entries represent Extended Battery measurements.

Adjusted SAR results for OFDM SAR													
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	10g Scaled SAR [W/kg]	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm]	Ratio of OFDM to DSSS	10g Adjusted SAR [W/kg]	Determine OFDM SAR	
MHz	Ch												
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.332	2 437.0	802.11g	OFDM	15.00	0.891	0.296		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.332	2 437.0	802.11n (HT20)	OFDM	14.50	0.794	0.264		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.332	2 437.0	802.11ac (VHT20)	OFDM	14.50	0.794	0.264		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.332	2 437.0	802.11n (HT40)	OFDM	14.50	0.794	0.264		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.332	2 437.0	802.11ac (VHT40)	OFDM	14.70	0.832	0.276		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.332	2 437.0	802.11ax (HE20)	OFDM	12.50	0.501	0.166		X
2 437.0	6	802.11b (Ant.8)	DSSS	15.50	0.332	2 437.0	802.11ax (HE40)	OFDM	12.50	0.501	0.166		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.380	2 437.0	802.11g	OFDM	16.50	0.955	0.363		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.380	2 437.0	802.11n (HT20)	OFDM	14.50	0.603	0.229		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.380	2 437.0	802.11ac (VHT20)	OFDM	14.50	0.603	0.229		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.380	2 437.0	802.11n (HT40)	OFDM	14.50	0.603	0.229		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.380	2 437.0	802.11ac (VHT40)	OFDM	14.70	0.631	0.240		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.380	2 437.0	802.11ax (HE20)	OFDM	14.00	0.537	0.204		X
2 437.0	6	802.11b (Ant.9)	DSSS	16.70	0.380	2 437.0	802.11ax (HE40)	OFDM	14.00	0.537	0.204		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.272	2 437.0	802.11n (HT20)	OFDM	17.51	0.955	0.260		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.272	2 437.0	802.11ac (VHT20)	OFDM	17.51	0.955	0.260		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.272	2 437.0	802.11n (HT40)	OFDM	17.51	0.955	0.260		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.272	2 437.0	802.11ax (HE20)	OFDM	16.32	0.726	0.197		X
2 437.0	6	802.11ac (MIMO)	OFDM	17.71	0.272	2 437.0	802.11ax (HE40)	OFDM	16.32	0.726	0.197		X
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram					

Note: SAR is not required for the following 2.4 GHz OFDM conditions. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 3.0 W/kg.

Table 11.3.2 UNII Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR [W/kg]	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (Reported SAR) [W/kg]	Plots #
MHz	Ch														
5 270.0	54	802.11n (Ant.8)	14.50	14.46	-0.030	0 mm [Top]	FCC #2	0.050	MCS0	99.2	0.052	1.009	1.008	0.053	A38
5 270.0	54	802.11n (Ant.8)	14.50	14.46	-0.010	0 mm [Front]	FCC #2	0.168	MCS0	99.2	0.167	1.009	1.008	0.170	
5 270.0	54	802.11n (Ant.8)	14.50	14.46	0.070	0 mm [Rear]	FCC #2	0.267	MCS0	99.2	0.340	1.009	1.008	0.346	
5 270.0	54	802.11n (Ant.8)	14.50	14.46	-0.040	0 mm [Right]	FCC #2	0.896	MCS0	99.2	0.983	1.009	1.008	1.000	
5 270.0	54	802.11n (Ant.8)	14.50	14.46	0.110	0 mm [Right]	FCC #2	0.768	MCS0	99.2	0.958	1.009	1.008	0.974	A39
5 270.0	54	802.11n (Ant.9)	14.50	14.43	-0.010	0 mm [Top]	FCC #2	0.017	MCS0	99.2	0.007	1.016	1.008	0.007	
5 270.0	54	802.11n (Ant.9)	14.50	14.43	0.090	0 mm [Front]	FCC #2	0.135	MCS0	99.2	0.010	1.016	1.008	0.010	
5 270.0	54	802.11n (Ant.9)	14.50	14.43	-0.080	0 mm [Rear]	FCC #2	0.197	MCS0	99.2	0.220	1.016	1.008	0.225	
5 270.0	54	802.11n (Ant.9)	14.50	14.43	0.100	0 mm [Left]	FCC #2	0.070	MCS0	99.2	0.049	1.016	1.008	0.050	A40
5 270.0	54	802.11n (Ant.9)	14.50	14.43	0.190	0 mm [Rear]	FCC #2	0.110	MCS0	99.2	0.128	1.016	1.008	0.131	
5 270.0	54	802.11n (MIMO)	17.51	17.46	-0.050	0 mm [Top]	FCC #2	0.054	MCS0	99.2	0.055	1.016	1.008	0.056	
5 270.0	54	802.11n (MIMO)	17.51	17.46	-0.020	0 mm [Front]	FCC #2	0.167	MCS0	99.2	0.166	1.016	1.008	0.170	
5 270.0	54	802.11n (MIMO)	17.51	17.46	-0.120	0 mm [Rear]	FCC #2	0.225	MCS0	99.2	0.166	1.016	1.008	0.170	A40
5 270.0	54	802.11a (MIMO)	17.51	17.46	-0.060	0 mm [Right]	FCC #2	0.811	MCS0	99.2	0.924	1.016	1.008	0.946	
5 270.0	54	802.11n (MIMO)	17.51	17.46	-0.030	0 mm [Left]	FCC #2	0.059	MCS0	99.2	0.077	1.016	1.008	0.079	
5 270.0	54	802.11n (MIMO)	17.51	17.46	-0.060	0 mm [Right]	FCC #2	0.630	MCS0	99.2	0.896	1.016	1.008	0.918	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure												Phablet 4.0 W/kg (mW/g) averaged over 10 gram			
Note: Blue entries represent Extended Battery measurements.															

Note: Blue entries represent Extended Battery measurements.

Adjusted SAR results for UNII-1 and UNII-2A SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	10g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm]	Adjusted Factor	10g Adjusted SAR (W/kg)	SAR for the band with lower maximum output power
MHz	Ch											
5 270.0	54	802.11n (Ant.8)	OFDM	14.50	1.000	5 240.0	802.11n	OFDM	14.50	1.000	1.000	X
5 270.0	54	802.11n (Ant.9)	OFDM	14.50	0.225	5 220.0	802.11n	OFDM	14.50	1.000	0.225	X
5 270.0	54	802.11n (MIMO)	OFDM	17.51	0.946	5 220.0	802.11n	OFDM	17.51	1.000	0.946	X
ANSI / IEEE C95.1-1992- SAFETY LIMIT												
Spatial Peak						Head						
Uncontrolled Exposure/General Population Exposure						1.6 W/kg (mW/g) averaged over 1 gram						

Note: U-NII-1 and U-NII-2A Bands: When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 3.0 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

Table 11.3.3 UNII Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR [W/kg]	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (Reported SAR) [W/kg]	Plots #
MHz	Ch														
5 510.0	102	802.11n (Ant.8)	14.00	13.90	0.160	0 mm [Top]	FCC #2	0.066	MCS0	99.2	0.061	1.023	1.019	0.064	A41
5 510.0	102	802.11n (Ant.8)	14.00	13.90	0.000	0 mm [Front]	FCC #2	0.178	MCS0	99.2	0.184	1.023	1.019	0.192	
5 510.0	102	802.11n (Ant.8)	14.00	13.90	-0.010	0 mm [Rear]	FCC #2	0.234	MCS0	99.2	0.217	1.023	1.019	0.226	
5 510.0	102	802.11n (Ant.8)	14.00	13.90	-0.060	0 mm [Right]	FCC #2	0.646	MCS0	99.2	0.673	1.023	1.019	0.702	
5 510.0	102	802.11n (Ant.8)	14.00	13.90	0.040	0 mm [Right]	FCC #2	0.546	MCS0	99.2	0.629	1.023	1.019	0.656	A42
5 510.0	102	802.11n (Ant.9)	14.00	13.89	0.000	0 mm [Top]	FCC #2	0.013	MCS0	99.2	0.013	1.026	1.019	0.014	
5 510.0	102	802.11n (Ant.9)	14.00	13.89	0.180	0 mm [Front]	FCC #2	0.035	MCS0	99.2	0.041	1.026	1.019	0.043	
5 510.0	102	802.11n (Ant.9)	14.00	13.89	-0.180	0 mm [Rear]	FCC #2	0.170	MCS0	99.2	0.192	1.026	1.019	0.201	
5 510.0	102	802.11n (Ant.9)	14.00	13.89	-0.130	0 mm [Left]	FCC #2	0.064	MCS0	99.2	0.060	1.026	1.019	0.063	A43
5 510.0	102	802.11n (Ant.9)	14.00	13.89	0.150	0 mm [Rear]	FCC #2	0.081	MCS0	99.2	0.096	1.026	1.019	0.100	
5 510.0	102	802.11n (MIMO)	17.01	16.91	-0.150	0 mm [Top]	FCC #2	0.068	MCS0	99.2	0.051	1.026	1.019	0.053	
5 510.0	102	802.11n (MIMO)	17.01	16.91	0.170	0 mm [Front]	FCC #2	0.144	MCS0	99.2	0.148	1.026	1.019	0.155	
5 510.0	102	802.11n (MIMO)	17.01	16.91	-0.080	0 mm [Rear]	FCC #2	0.198	MCS0	99.2	0.239	1.026	1.019	0.250	A44
5 510.0	102	802.11n (MIMO)	17.01	16.91	-0.180	0 mm [Right]	FCC #2	0.648	MCS0	99.2	0.756	1.026	1.019	0.790	
5 510.0	102	802.11n (MIMO)	17.01	16.91	0.040	0 mm [Left]	FCC #2	0.081	MCS0	99.2	0.089	1.026	1.019	0.093	
5 510.0	102	802.11n (MIMO)	17.01	16.91	0.030	0 mm [Right]	FCC #2	0.624	MCS0	99.2	0.625	1.026	1.019	0.653	
5 755.0	151	802.11n (Ant.8)	14.00	13.93	0.020	0 mm [Top]	FCC #2	0.065	MCS0	99.2	0.063	1.016	1.008	0.065	A45
5 755.0	151	802.11n (Ant.8)	14.00	13.93	-0.030	0 mm [Front]	FCC #2	0.110	MCS0	99.2	0.194	1.016	1.008	0.199	
5 755.0	151	802.11n (Ant.8)	14.00	13.93	-0.040	0 mm [Rear]	FCC #2	0.235	MCS0	99.2	0.228	1.016	1.008	0.234	
5 755.0	151	802.11n (Ant.8)	14.00	13.93	-0.060	0 mm [Right]	FCC #2	0.589	MCS0	99.2	0.682	1.016	1.008	0.699	
5 755.0	151	802.11n (Ant.8)	14.00	13.93	0.050	0 mm [Right]	FCC #2	0.572	MCS0	99.2	0.663	1.016	1.008	0.679	A46
5 755.0	151	802.11n (Ant.9)	14.00	13.31	0.000	0 mm [Top]	FCC #2	0.021	MCS0	99.2	0.013	1.172	1.008	0.015	
5 755.0	151	802.11n (Ant.9)	14.00	13.31	0.110	0 mm [Front]	FCC #2	0.031	MCS0	99.2	0.020	1.172	1.008	0.024	
5 755.0	151	802.11n (Ant.9)	14.00	13.31	-0.160	0 mm [Rear]	FCC #2	0.170	MCS0	99.2	0.196	1.172	1.008	0.232	
5 755.0	151	802.11n (Ant.9)	14.00	13.31	-0.020	0 mm [Left]	FCC #2	0.092	MCS0	99.2	0.101	1.172	1.008	0.119	A47
5 755.0	151	802.11n (Ant.9)	14.00	13.31	-0.100	0 mm [Rear]	FCC #2	0.082	MCS0	99.2	0.101	1.172	1.008	0.119	
5 755.0	151	802.11n (MIMO)	17.01	16.64	0.090	0 mm [Top]	FCC #2	0.071	MCS0	99.2	0.061	1.172	1.008	0.072	
5 755.0	151	802.11n (MIMO)	17.01	16.64	-0.080	0 mm [Front]	FCC #2	0.142	MCS0	99.2	0.158	1.172	1.008	0.187	
5 755.0	151	802.11n (MIMO)	17.01	16.64	-0.090	0 mm [Rear]	FCC #2	0.203	MCS0	99.2	0.251	1.172	1.008	0.297	A48
5 755.0	151	802.11n (MIMO)	17.01	16.64	-0.100	0 mm [Right]	FCC #2	0.625	MCS0	99.2	0.757	1.172	1.008	0.894	
5 755.0	151	802.11n (MIMO)	17.01	16.64	0.110	0 mm [Left]	FCC #2	0.090	MCS0	99.2	0.090	1.172	1.008	0.106	
5 755.0	151	802.11n (MIMO)	17.01	16.64	0.070	0 mm [Right]	FCC #2	0.640	MCS0	99.2	0.660	1.172	1.008	0.780	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram							

Note: Blue entries represent Extended Battery measurements.

Table 11.3.4 UNII Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (Reported SAR) (W/kg)	Plots #
MHz	Ch														
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.090	0 mm [Top]	FCC #2	0.029	MCS0	99.1	0.034	1.091	1.009	0.037	A47
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.040	0 mm [Front]	FCC #2	0.037	MCS0	99.1	0.043	1.091	1.009	0.047	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.120	0 mm [Rear]	FCC #2	0.083	MCS0	99.1	0.090	1.091	1.009	0.099	
6 025.0	15	802.11ax (Ant.8)	10.00	9.56	0.030	0 mm [Right]	FCC #2	0.234	MCS0	99.1	0.274	1.107	1.009	0.306	
6 345.0	79	802.11ax (Ant.8)	9.00	8.95	0.020	0 mm [Right]	FCC #2	0.311	MCS0	99.1	0.348	1.012	1.009	0.355	
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	-0.080	0 mm [Right]	FCC #2	0.334	MCS0	99.1	0.378	1.047	1.009	0.399	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.040	0 mm [Right]	FCC #2	0.214	MCS0	99.1	0.204	1.091	1.009	0.225	
6 985.0	207	802.11ax (Ant.8)	10.00	9.27	-0.110	0 mm [Right]	FCC #2	0.152	MCS0	99.1	0.173	1.183	1.009	0.207	
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	-0.130	0 mm [Right]	FCC #2	0.342	MCS0	99.1	0.368	1.047	1.009	0.389	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	0 mm [Top]	FCC #2	0.001	MCS0	99.1	0.003	1.005	1.009	0.003	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	-0.040	0 mm [Front]	FCC #2	0.022	MCS0	99.1	0.029	1.005	1.009	0.029	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.070	0 mm [Rear]	FCC #2	0.118	MCS0	99.1	0.131	1.005	1.009	0.133	
6 025.0	15	802.11ax (Ant.9)	10.00	8.98	-0.070	0 mm [Left]	FCC #2	0.114	MCS0	99.1	0.132	1.265	1.009	0.168	
6 345.0	79	802.11ax (Ant.9)	10.00	9.88	-0.110	0 mm [Left]	FCC #2	0.082	MCS0	99.1	0.095	1.028	1.009	0.099	
6 505.0	111	802.11ax (Ant.9)	10.00	9.87	-0.100	0 mm [Left]	FCC #2	0.175	MCS0	99.1	0.192	1.030	1.009	0.200	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.130	0 mm [Left]	FCC #2	0.123	MCS0	99.1	0.151	1.005	1.009	0.153	
6 985.0	207	802.11ax (Ant.9)	10.00	9.86	-0.070	0 mm [Left]	FCC #2	0.185	MCS0	99.1	0.213	1.033	1.009	0.222	A48
6 985.0	207	802.11ax (Ant.9)	10.00	9.86	0.150	0 mm [Left]	FCC #2	0.194	MCS0	99.1	0.207	1.033	1.009	0.216	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.180	0 mm [Top]	FCC #2	0.047	MCS0	98.1	0.049	1.091	1.019	0.054	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.150	0 mm [Front]	FCC #2	0.045	MCS0	98.1	0.050	1.091	1.019	0.056	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.040	0 mm [Rear]	FCC #2	0.140	MCS0	98.1	0.154	1.091	1.019	0.171	
6 025.0	15	802.11ax (MIMO)	13.01	12.29	-0.050	0 mm [Right]	FCC #2	0.212	MCS0	98.1	0.249	1.265	1.019	0.321	
6 345.0	79	802.11ax (MIMO)	12.54	12.45	0.020	0 mm [Right]	FCC #2	0.301	MCS0	98.1	0.341	1.028	1.019	0.357	
6 505.0	111	802.11ax (MIMO)	12.54	12.38	0.010	0 mm [Right]	FCC #2	0.340	MCS0	98.1	0.368	1.047	1.019	0.393	A49
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.080	0 mm [Right]	FCC #2	0.235	MCS0	98.1	0.272	1.091	1.019	0.302	
6 985.0	207	802.11ax (MIMO)	13.01	12.59	-0.030	0 mm [Right]	FCC #2	0.163	MCS0	98.1	0.179	1.183	1.019	0.216	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.140	0 mm [Left]	FCC #2	0.150	MCS0	98.1	0.171	1.091	1.019	0.190	
6 505.0	111	802.11ax (MIMO)	12.54	12.38	0.050	0 mm [Right]	FCC #2	0.334	MCS0	98.1	0.363	1.047	1.019	0.387	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure															
												Phablet 4.0 W/kg (mW/g) averaged over 10 gram			

Note: Blue entries represent Extended Battery measurements.

Table 11.3.5 UNII Phablet APD

MEASUREMENT RESULTS														
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Data Rate [Mbps]	Duty Cycle	APD [W/m² (4cm²)]	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (Reported SAR) (W/kg)	Plots #
MHz	Ch													
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.090	0 mm [Top]	FCC #2	MCS0	99.1	0.766	1.091	1.009	0.843	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.040	0 mm [Front]	FCC #2	MCS0	99.1	0.976	1.091	1.009	1.074	
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.120	0 mm [Rear]	FCC #2	MCS0	99.1	2.070	1.091	1.009	2.279	
6 025.0	15	802.11ax (Ant.8)	10.00	9.56	0.030	0 mm [Right]	FCC #2	MCS0	99.1	6.440	1.107	1.009	7.194	
6 345.0	79	802.11ax (Ant.8)	9.00	8.95	0.020	0 mm [Right]	FCC #2	MCS0	99.1	8.220	1.012	1.009	8.394	
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	-0.080	0 mm [Right]	FCC #2	MCS0	99.1	8.870	1.047	1.009	9.371	A47
6 665.0	143	802.11ax (Ant.8)	10.00	9.62	0.040	0 mm [Right]	FCC #2	MCS0	99.1	4.750	1.091	1.009	5.229	
6 985.0	207	802.11ax (Ant.8)	10.00	9.27	-0.110	0 mm [Right]	FCC #2	MCS0	99.1	4.060	1.183	1.009	4.847	
6 505.0	111	802.11ax (Ant.8)	9.00	8.80	-0.130	0 mm [Right]	FCC #2	MCS0	99.1	8.640	1.047	1.009	9.128	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	0 mm [Top]	FCC #2	MCS0	99.1	0.069	1.005	1.009	0.070	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	-0.040	0 mm [Front]	FCC #2	MCS0	99.1	0.657	1.005	1.009	0.666	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.070	0 mm [Rear]	FCC #2	MCS0	99.1	2.900	1.005	1.009	2.941	
6 025.0	15	802.11ax (Ant.9)	10.00	8.98	-0.070	0 mm [Left]	FCC #2	MCS0	99.1	3.080	1.265	1.009	3.932	
6 345.0	79	802.11ax (Ant.9)	10.00	9.88	-0.110	0 mm [Left]	FCC #2	MCS0	99.1	2.240	1.028	1.009	2.324	
6 505.0	111	802.11ax (Ant.9)	10.00	9.87	-0.100	0 mm [Left]	FCC #2	MCS0	99.1	4.500	1.030	1.009	4.677	
6 665.0	143	802.11ax (Ant.9)	10.00	9.98	0.130	0 mm [Left]	FCC #2	MCS0	99.1	3.520	1.005	1.009	3.570	
6 985.0	207	802.11ax (Ant.9)	10.00	9.86	-0.070	0 mm [Left]	FCC #2	MCS0	99.1	4.980	1.033	1.009	5.191	A48
6 985.0	207	802.11ax (Ant.9)	10.00	9.86	0.150	0 mm [Left]	FCC #2	MCS0	99.1	4.810	1.033	1.009	5.014	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.180	0 mm [Top]	FCC #2	MCS0	98.1	1.110	1.091	1.019	1.234	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.150	0 mm [Front]	FCC #2	MCS0	98.1	1.130	1.091	1.019	1.257	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.040	0 mm [Rear]	FCC #2	MCS0	98.1	3.380	1.091	1.019	3.759	
6 025.0	15	802.11ax (MIMO)	13.01	12.29	-0.050	0 mm [Right]	FCC #2	MCS0	98.1	5.840	1.265	1.019	7.531	
6 345.0	79	802.11ax (MIMO)	12.54	12.45	0.020	0 mm [Right]	FCC #2	MCS0	98.1	8.060	1.028	1.019	8.446	
6 505.0	111	802.11ax (MIMO)	12.54	12.38	0.010	0 mm [Right]	FCC #2	MCS0	98.1	8.580	1.047	1.019	9.157	A49
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.080	0 mm [Right]	FCC #2	MCS0	98.1	6.340	1.091	1.019	7.051	
6 985.0	207	802.11ax (MIMO)	13.01	12.59	-0.030	0 mm [Right]	FCC #2	MCS0	98.1	4.210	1.183	1.019	5.077	
6 665.0	143	802.11ax (MIMO)	13.01	12.81	-0.140	0 mm [Left]	FCC #2	MCS0	98.1	3.990	1.091	1.019	4.437	
6 505.0	111	802.11ax (MIMO)	12.54	12.38	0.050	0 mm [Right]	FCC #2	MCS0	98.1	8.490	1.047	1.019	9.061	

Note(s):
1. APD (Absorbed Power Density) over 4 cm² averaging area is reported based on SAR measurements.
2. 10 W/m²= 1.0 mW/cm²
3. Blue entries represent Extended Battery measurements.

Table 10.3.6 Bluetooth/Bluetooth LE Phablet SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode (Module)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (Reported SAR) (W/kg)	Plot s #
MHz	Ch													
2 441.0	39	BT (Ant.8)	5.00	4.90	0.130	0 mm [Top]	FCC #2	1	76.8	0.024	1.023	1.302	0.032	
2 441.0	39	BT (Ant.8)	5.00	4.90	-0.090	0 mm [Front]	FCC #2	1	76.8	0.029	1.023	1.302	0.039	
2 441.0	39	BT (Ant.8)	5.00	4.90	0.080	0 mm [Rear]	FCC #2	1	76.8	0.028	1.023	1.302	0.037	
2 441.0	39	BT (Ant.8)	5.00	4.90	-0.190	0 mm [Right]	FCC #2	1	76.8	0.057	1.023	1.302	0.076	A50
2 441.0	39	BT (Ant.8)	5.00	4.90	-0.110	0 mm [Right]	FCC #2	1	76.8	0.056	1.023	1.302	0.075	
2 440.0	19	BLE (Ant.8)	5.00	4.90	0.130	0 mm [Top]	FCC #2	1	85.2	0.028	1.023	1.174	0.034	
2 440.0	19	BLE (Ant.8)	5.00	4.90	-0.110	0 mm [Front]	FCC #2	1	85.2	0.033	1.023	1.174	0.040	
2 440.0	19	BLE (Ant.8)	5.00	4.90	0.130	0 mm [Rear]	FCC #2	1	85.2	0.035	1.023	1.174	0.042	
2 440.0	19	BLE (Ant.8)	5.00	4.90	0.050	0 mm [Right]	FCC #2	1	85.2	0.072	1.023	1.174	0.086	A51
2 440.0	19	BLE (Ant.8)	5.00	4.90	-0.140	0 mm [Right]	FCC #2	1	85.2	0.066	1.023	1.174	0.079	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram						

Note: Blue entries represent Extended Battery measurements.

Table 10.3.7 NFC Phablet SAR

MEASUREMENT RESULTS											
FREQUENCY		Mode	Drift Power [dB]	Phantom Position	Device Serial Number	Duty Cycle (%)	10 g SAR (W/kg)	Plots #			
MHz	Ch										
13.6	13600	NFC	0.190	0 mm [Top]	FCC #1	100	0.001	A52			
13.6	13600	NFC	-0.090	0 mm [Bottom]	FCC #1	100	0.001				
13.6	13600	NFC	0.080	0 mm [Front]	FCC #1	100	0.028				
13.6	13600	NFC	0.000	0 mm [Rear]	FCC #1	100	0.003				
13.6	13600	NFC	0.000	0 mm [Right]	FCC #1	100	0.001				
13.6	13600	NFC	0.000	0 mm [Left]	FCC #1	100	0.001				
13.6	13600	NFC	0.110	0 mm [Front]	FCC #1	100	0.023				
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak						Phablet 4.0 W/kg (mW/g)					

Note: Blue entries represent Extended Battery measurements.

10.4 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D01v06.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 10 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB Publication 648474 D04v01r03, body-worn SAR was evaluated without a headset connected to the device. Since the standalone reported body-worn SAR was not > 1.2 W/kg, no additional body-worn SAR evaluations using a headset cable were performed.
8. During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v02r01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated.
9. Unless otherwise noted, when 10g SAR measurement is considered, a factor of 2.5 is applied to the 1g thresholds for equivalent test cases.
10. SAR measurements were performed using the DASY5 automated system. The procedure for spatial peak SAR evaluation has been implemented according to the IEEE 1528 standard. During a maximum search, global and local maxima searches are automatically performed in 2-D after each area scan measurement. The algorithm will find the global maximum and all local maxima within 2 dB of the global maxima for all SAR distributions. All local maxima within 2 dB of the global maximum were searched and passed for the Zoom Scan measurement.
11. Per October 2020 TCB Workshop notes, absorbed power density (APD) using 4cm^2 averaging area is reported based on SAR measurements.

WLAN Notes:

1. The initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output and the adjusted SAR is ≤ 1.2 W/kg.
3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg.
4. When the maximum reported 1g averaged SAR ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
5. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor to determine compliance.
6. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D01v06 by making a SAR measurement with both antennas transmitting simultaneously.
7. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.
8. Per FCC guidance, SAR was performed using 6.5 GHz SAR probe calibration factor for WIFI 6E. Per October 2020 TCB Workshop notes, 5 channels were tested for WIFI 6E.

Bluetooth Notes:

1. Bluetooth SAR was measured with the device connected to a call with hopping disabled with DH5 operation. Per October 2016 TCB Workshop Notes, the reported SAR was scaled to the 100% transmission duty factor to determine compliance. Refer to section 8.3 for the time-domain plot and calculation for the duty factor of the device.
2. Head and Hotspot Bluetooth SAR were evaluated for BT BDR tethering applications.
3. The highest frame average power configurations for both Bluetooth and Bluetooth LE were evaluated for SAR. The worst case configuration was used for the remaining test positions as the most conservative scenario.

10.5 IPD (Incident Power Density) Results

Table 11.6.1 UNII IPD

FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Grid Step (A)	Data Rate [Mbps]	Duty Cycle (%)	Scaling Factor for Measurement Uncertainty per IEC 62479	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Normal psPD (W/m ²)	Scaled Normal psPD (W/m ²)	Total psPD (W/m ²)	Scaled Total psPD (Reported Total psPD) (W/m ²)	Plots #
MHz	Ch																	
6665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.130	2 mm [Top]	FCC #2	0.050	MCS0	99.1	1.116	1.091	1.009	0.387	0.475	0.904	1.111	
6665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	2 mm [Bottom]	FCC #2	0.050	MCS0	99.1	1.116	1.091	1.009	< 0.001	< 0.001	< 0.001	< 0.001	
6665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.190	2 mm [Front]	FCC #2	0.050	MCS0	99.1	1.116	1.091	1.009	0.828	1.017	2.170	2.666	
6665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.080	2 mm [Rear]	FCC #2	0.050	MCS0	99.1	1.116	1.091	1.009	0.960	1.179	1.900	2.334	
6025.0	15	802.11ax (Ant.8)	10.00	9.56	-0.060	2 mm [Right]	FCC #2	0.050	MCS0	99.1	1.116	1.107	1.009	2.140	2.668	2.990	3.727	
6345.0	79	802.11ax (Ant.8)	9.00	8.95	-0.190	2 mm [Right]	FCC #2	0.050	MCS0	99.1	1.116	1.012	1.009	1.470	1.675	2.730	3.111	
6505.0	111	802.11ax (Ant.8)	9.00	8.80	-0.060	2 mm [Right]	FCC #2	0.050	MCS0	99.1	1.116	1.047	1.009	1.950	2.299	3.260	3.844	A53
6665.0	143	802.11ax (Ant.8)	10.00	9.62	0.000	2 mm [Right]	FCC #2	0.050	MCS0	99.1	1.116	1.091	1.009	1.300	1.597	2.330	2.863	
6985.0	207	802.11ax (Ant.8)	10.00	9.27	-0.100	2 mm [Right]	FCC #2	0.050	MCS0	99.1	1.116	1.183	1.009	1.260	1.679	2.400	3.197	
6665.0	143	802.11ax (Ant.8)	10.00	9.62	-0.180	2 mm [Left]	FCC #2	0.050	MCS0	99.1	1.116	1.091	1.009	0.219	0.269	0.468	0.575	
6505.0	111	802.11ax (Ant.8)	9.00	8.80	0.150	2 mm [Right]	FCC #2	0.050	MCS0	99.1	1.116	1.047	1.009	1.810	2.134	3.060	3.608	
6665.0	143	802.11ax (Ant.9)	10.00	9.98	-0.020	2 mm [Top]	FCC #2	0.050	MCS0	99.1	1.116	1.005	1.009	0.167	0.189	0.377	0.427	
6665.0	143	802.11ax (Ant.9)	10.00	9.98	0.000	2 mm [Bottom]	FCC #2	0.050	MCS0	99.1	1.116	1.005	1.009	< 0.001	< 0.001	< 0.001	< 0.001	
6665.0	143	802.11ax (Ant.9)	10.00	9.98	-0.190	2 mm [Front]	FCC #2	0.050	MCS0	99.1	1.116	1.005	1.009	0.527	0.596	1.030	1.166	
6665.0	143	802.11ax (Ant.9)	10.00	9.98	-0.040	2 mm [Rear]	FCC #2	0.050	MCS0	99.1	1.116	1.005	1.009	1.340	1.517	2.080	2.354	
6665.0	143	802.11ax (Ant.9)	10.00	9.98	0.170	2 mm [Right]	FCC #2	0.050	MCS0	99.1	1.116	1.005	1.009	0.058	0.066	0.136	0.154	
6025.0	15	802.11ax (Ant.9)	10.00	8.98	-0.030	2 mm [Left]	FCC #2	0.050	MCS0	99.1	1.116	1.265	1.009	0.922	1.313	1.260	1.795	
6345.0	79	802.11ax (Ant.9)	10.00	9.88	-0.050	2 mm [Left]	FCC #2	0.050	MCS0	99.1	1.116	1.028	1.009	0.698	0.808	1.450	1.679	
6505.0	111	802.11ax (Ant.9)	10.00	9.87	-0.050	2 mm [Left]	FCC #2	0.050	MCS0	99.1	1.116	1.030	1.009	2.180	2.529	3.090	3.584	A54
6665.0	143	802.11ax (Ant.9)	10.00	9.98	-0.180	2 mm [Left]	FCC #2	0.050	MCS0	99.1	1.116	1.005	1.009	1.750	1.981	2.750	3.112	
6985.0	207	802.11ax (Ant.9)	10.00	9.86	0.010	2 mm [Left]	FCC #2	0.050	MCS0	99.1	1.116	1.033	1.009	1.840	2.140	2.510	2.920	
6505.0	111	802.11ax (Ant.9)	10.00	9.87	-0.040	2 mm [Left]	FCC #2	0.050	MCS0	99.1	1.116	1.030	1.009	1.910	2.215	2.870	3.329	
6665.0	143	802.11ax (MIMO)	13.01	12.81	-0.020	2 mm [Top]	FCC #2	0.050	MCS0	98.1	1.116	1.091	1.019	0.550	0.683	1.220	1.514	
6665.0	143	802.11ax (MIMO)	13.01	12.81	-0.070	2 mm [Bottom]	FCC #2	0.050	MCS0	98.1	1.116	1.091	1.019	0.048	0.060	0.105	0.130	
6665.0	143	802.11ax (MIMO)	13.01	12.81	-0.130	2 mm [Front]	FCC #2	0.050	MCS0	98.1	1.116	1.091	1.019	0.773	0.959	2.190	2.718	
6665.0	143	802.11ax (MIMO)	13.01	12.81	-0.140	2 mm [Rear]	FCC #2	0.050	MCS0	98.1	1.116	1.091	1.019	1.040	1.291	1.850	2.296	
6665.0	143	802.11ax (MIMO)	13.01	12.81	0.100	2 mm [Right]	FCC #2	0.050	MCS0	98.1	1.116	1.091	1.019	1.740	2.160	2.760	3.426	
6025.0	15	802.11ax (MIMO)	13.01	12.29	-0.040	2 mm [Left]	FCC #2	0.050	MCS0	98.1	1.116	1.265	1.019	1.230	1.770	2.190	3.152	
6345.0	79	802.11ax (MIMO)	12.54	12.45	-0.130	2 mm [Left]	FCC #2	0.050	MCS0	98.1	1.116	1.028	1.019	0.781	0.913	1.280	1.497	
6505.0	111	802.11ax (MIMO)	12.54	12.38	-0.010	2 mm [Left]	FCC #2	0.050	MCS0	98.1	1.116	1.047	1.019	1.380	1.644	1.970	2.346	
6665.0	143	802.11ax (MIMO)	13.01	12.81	-0.170	2 mm [Left]	FCC #2	0.050	MCS0	98.1	1.116	1.091	1.019	2.160	2.681	3.140	3.897	A55
6985.0	207	802.11ax (MIMO)	13.01	12.59	-0.150	2 mm [Left]	FCC #2	0.050	MCS0	98.1	1.116	1.183	1.019	1.180	1.588	1.990	2.678	
6665.0	143	802.11ax (MIMO)	13.01	12.81	-0.180	2 mm [Left]	FCC #2	0.050	MCS0	98.1	1.116	1.091	1.019	1.970	2.445	2.890	3.587	

Note(s):

1. 10 W/m²= 1.0 mW/cm²
2. Per TCBC workshop guide, Incident power density results were scaled according to IEC62479:2010 for the portion of the measurement uncertainty >3 0%. Total expanded uncertainty of 1.51 dB (41.6%) was used to determine the psPD measurement scaling factor.
3. Per manufacturer guide, Grid Step setting were using the automatic grid step function of measurement system tool.
4. Per manufacturer guide, Incident power density was measured at d=2mm.
5. ESR Algorithm was used during psPD measurement and calculations.
6. SISO Ant mode was evaluated in the worst case configuration of SAR test results.
7. MIMO Ant mode was evaluated for the entire measurement position in the worst case configuration of SAR test results.
8. Blue entries represent Extended Battery measurements.

10.6 Power Density General Notes

1. The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
2. Batteries are fully charged at the beginning of the measurements. The DUT was connected to a wall charger for some measurements due to the test duration. It was confirmed that the charger plugged into this DUT did not impact the near-field PD test results.
3. Power density was calculated by repeated E-field measurements on two measurement planes separated by $\lambda/4$.
4. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools.
5. Per FCC guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 1.51 dB (41.6%) was used to determine the psPD measurement scaling factor.
6. Per equipment manufacturer guidance, power density was measured at $d=2\text{mm}$ and $d=\lambda/5\text{mm}$ using the same grid size and grid step size for some frequencies and surfaces. The integrated Power Density (iPD) was calculated based on these measurements. Since iPD ratio between the two distances is $\geq -1\text{dB}$, the grid step was sufficient for determining compliance at $d=2\text{mm}$.
7. psPD for MIMO was evaluated by making a measurement with both antennas transmitting simultaneously.
8. PTP-PR algorithm was used during psPD measurement and calculations.
9. PD results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D04.

11. FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS

11.1 Introduction

The following procedures adopted from FCC KDB Publication 447498 D01v06 are applicable to handsets with built-in unlicensed transmitters such as 802.11 and Bluetooth devices which may simultaneously transmit with the licensed transmitter.

11.2 Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore simultaneous transmission analysis is required. Per FCC KDB 447498 D01v06 4.3.2 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the sum 1g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤ 1.6 W/kg. The different test position in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1g or 10g SAR.

$$\text{Estimated SAR} = \frac{\sqrt{f(\text{GHz})}}{7.5} * \frac{(\text{Max Power of channel, mW})}{\text{Min. Separation Distance, mm}}$$

Table 11.2.1 Estimated SAR (Head)

Mode	Frequency	Maximum Allowed Power		Separation Distance (Body)	Estimated SAR (Body)
	[MHz]	[dBm]	[mW]	[mm]	[W/kg]
Bluetooth	2480	-1	1	5	0.033

Table 11.2.2 Estimated SAR (Body-Worn at 15 mm)

Mode	Frequency	Maximum Allowed Power		Separation Distance (Body)	Estimated SAR (Body)
	[MHz]	[dBm]	[mW]	[mm]	[W/kg]
Bluetooth	2480	-1	1	15	0.011

Table 11.2.3 Estimated SAR (Phablet at 0 mm)

Mode	Frequency	Maximum Allowed Power		Separation Distance (Body)	Estimated SAR (Body)
	[MHz]	[dBm]	[mW]	[mm]	[W/kg]
Bluetooth	2480	-1	1	5	0.013

For all combinations where the TER sum is not greater than 1, there's no further analysis required for compliance demonstration.

11.3 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06.

No.	Capable Transmit Configuration	Head	Body-Worn	Note
1	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Bluetooth 2.4 GHz Ant.8			
2	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.9 + Bluetooth 2.4 GHz Ant.8			
3	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9)			
4	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
5	BLE 2.4 GHz Ant.12 + Wi-Fi 5 GHz Ant.8 + Bluetooth 2.4 GHz Ant.8			
6	BLE 2.4 GHz Ant.12 + Wi-Fi 5 GHz Ant.9 + Bluetooth 2.4 GHz Ant.8			
7	BLE 2.4 GHz Ant.12 + Wi-Fi 5 GHz MIMO (Ant.8 + Ant.9)			
8	BLE 2.4 GHz Ant.12 + Wi-Fi 5 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8	Yes*	Yes	*Bluetooth Tethering is considered.
9	BLE 2.4 GHz Ant.12 + Wi-Fi 6 GHz Ant.8 + Bluetooth 2.4 GHz Ant.8			
10	BLE 2.4 GHz Ant.12 + Wi-Fi 6 GHz Ant.9 + Bluetooth 2.4 GHz Ant.8			
11	BLE 2.4 GHz Ant.12 + Wi-Fi 6 GHz MIMO (Ant.8 + Ant.9)			
12	BLE 2.4 GHz Ant.12 + Wi-Fi 6 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
13	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Wi-Fi 5 GHz MIMO (Ant.8 + Ant.9)			
14	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Wi-Fi 6 GHz MIMO (Ant.8 + Ant.9)			
15	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Wi-Fi 5 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
16	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Wi-Fi 6 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
17	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 5 GHz Ant.9			
18	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 5 GHz Ant.9 + Bluetooth 2.4 GHz Ant.8			
19	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 5 GHz Ant.8			
20	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 5 GHz Ant.8 + Bluetooth 2.4 GHz Ant.8			
21	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.9 + Wi-Fi 5 GHz Ant.8			
22	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.9 + Wi-Fi 5 GHz Ant.8 + Bluetooth 2.4 GHz Ant.8			
23	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 5 GHz Ant.9			
24	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.9 + Wi-Fi 5 GHz Ant.9 + Bluetooth 2.4 GHz Ant.8			
25	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz Ant.9			
26	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz Ant.9 + Bluetooth 2.4 GHz Ant.8			
27	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz Ant.8			
28	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz Ant.8 + Bluetooth 2.4 GHz Ant.8			
29	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz Ant.8			
30	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz Ant.8 + Bluetooth 2.4 GHz Ant.8			
31	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.9 + Wi-Fi 6 GHz Ant.9	Yes*	Yes	*Bluetooth Tethering is considered.
32	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.9 + Wi-Fi 6 GHz Ant.9 + Bluetooth 2.4 GHz Ant.8			
33	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 5 GHz MIMO (Ant.8 + Ant.9)			
34	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 5 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
35	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.9 + Wi-Fi 5 GHz MIMO (Ant.8 + Ant.9)			
36	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.9 + Wi-Fi 5 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
37	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz MIMO (Ant.8 + Ant.9)			
38	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
39	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz MIMO (Ant.8 + Ant.9)			
40	BLE 2.4 GHz Ant.12 + Wi-Fi 2.4 GHz Ant.8 + Wi-Fi 6 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
41	BLE 2.4 GHz Ant.12 + Wi-Fi 5 GHz Ant.8 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9)			
42	BLE 2.4 GHz Ant.12 + Wi-Fi 5 GHz Ant.8 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
43	BLE 2.4 GHz Ant.12 + Wi-Fi 5 GHz Ant.9 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9)			
44	BLE 2.4 GHz Ant.12 + Wi-Fi 5 GHz Ant.9 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
45	BLE 2.4 GHz Ant.12 + Wi-Fi 6 GHz Ant.8 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9)			
46	BLE 2.4 GHz Ant.12 + Wi-Fi 6 GHz Ant.8 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			
47	BLE 2.4 GHz Ant.12 + Wi-Fi 6 GHz Ant.9 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9)			
48	BLE 2.4 GHz Ant.12 + Wi-Fi 6 GHz Ant.9 + Wi-Fi 2.4 GHz MIMO (Ant.8 + Ant.9) + Bluetooth 2.4 GHz Ant.8			

[illegible]

11.4 Head Simultaneous Transmission Analysis

Table 11.4.1 Simultaneous Transmission Scenario (Head SAR)

Mode	Conf. (Head)	BT Ant.12 + BT Ant.8	Wi-Fi 2.4G Ant.8	Wi-Fi 2.4G MIMO	Wi-Fi 5G Ant.8	Wi-Fi 5G Ant.9	Wi-Fi 5G MIMO	Wi-Fi 6G Ant.8	Wi-Fi 6G Ant.9	Wi-Fi 6G MIMO	Σ Head SAR (W/kg)																	
		1	2	3	4	5	6	7	8	9	10	1+4 +7	1+4 +10	1+2 +6	1+2 +5	1+3 +5	1+3 +6	1+2 +8	1+2 +9	1+3 +8	1+3 +9	1+2 +10	1+3 +10	1+4 +8	1+4 +9	1+4 +10	1+4 +11	
		1	2	3	4	5	6	7	8	9	10	1+4 +7	1+4 +10	1+2 +6	1+2 +5	1+3 +5	1+3 +6	1+2 +8	1+2 +9	1+3 +8	1+3 +9	1+2 +10	1+3 +10	1+4 +8	1+4 +9	1+4 +10	1+4 +11	
Head	Left Touch	0.108	0.339	0.339	0.295	0.330	0.123	0.327	0.108	0.330	0.332	0.339	0.330	0.333	0.371	0.492	0.335	0.493	0.331	0.325	0.324	0.379	0.330	0.323	0.339	0.330	0.328	0.344
	Right Touch	0.108	0.339	0.339	0.295	0.330	0.123	0.327	0.108	0.330	0.332	0.339	0.330	0.333	0.371	0.492	0.335	0.493	0.331	0.325	0.324	0.379	0.330	0.323	0.339	0.330	0.328	0.344
	Left Tilt	0.094	0.312	0.312	0.268	0.321	0.116	0.325	0.094	0.312	0.315	0.312	0.315	0.317	0.351	0.476	0.312	0.474	0.310	0.313	0.311	0.351	0.311	0.304	0.312	0.311	0.307	0.323
	Right Tilt	0.094	0.312	0.312	0.268	0.321	0.116	0.325	0.094	0.312	0.315	0.312	0.315	0.317	0.351	0.476	0.312	0.474	0.310	0.313	0.311	0.351	0.311	0.304	0.312	0.311	0.307	0.323

Table 11.4.2 Total Exposure Ratio (Head)

Mode	Conf. (Head)	BT Ant.12 + BT Ant.8	Wi-Fi 2.4G Ant.8	Wi-Fi 2.4G Ant.9	Wi-Fi 2.4G MIMO	Wi-Fi 6G Ant.8	Wi-Fi 6G Ant.9	Wi-Fi 6G MIMO	Head TER								
		1	2	3	4	5	6	7	1+4+10	1+2+9	1+2+8	1+3+8	1+3+9	1+2+10	1+3+10	1+4+8	1+4+9
		1	2	3	4	5	6	7	1+4+10	1+2+9	1+2+8	1+3+8	1+3+9	1+2+10	1+3+10	1+4+8	1+4+9
Head	Left Touch	0.108	0.334	0.334	0.295	0.269	1.168	2.718	0.523	0.373	0.523	0.380	0.238	0.528	0.392	0.517	0.367
	Right Touch	0.096	0.254	0.117	0.240	2.666	1.166	2.718	0.482	0.335	0.485	0.480	0.250	0.490	0.405	0.477	0.327
	Left Tilt	0.094	0.301	0.022	0.326	2.666	1.166	2.718	0.534	0.364	0.514	0.339	0.189	0.519	0.344	0.529	0.379
	Right Tilt	0.094	0.109	0.032	0.325	2.666	1.166	2.718	0.471	0.237	0.387	0.339	0.189	0.392	0.344	0.406	0.316

11.5 Body-Worn Simultaneous Transmission Analysis

Table 11.5.1 Simultaneous Transmission Scenario (Body-Worn SAR at 15 mm)

Mode	Conf. (Body-Worn)	BT Ant.12 + BT Ant.8	Wi-Fi 2.4G Ant.8	Wi-Fi 2.4G Ant.9	Wi-Fi 2.4G MIMO	Wi-Fi 5G Ant.8	Wi-Fi 5G Ant.9	Wi-Fi 5G MIMO	Wi-Fi 5G Ant.8	Wi-Fi 5G Ant.9	Wi-Fi 5G MIMO	Σ Body-Worn SAR (W/kg)																
		1	2	3	4	5	6	7	8	9	10	1+4 +7	1+4 +10	1+2 +6	1+2 +5	1+3 +5	1+3 +6	1+2 +8	1+2 +9	1+3 +8	1+3 +9	1+2 +10	1+3 +10	1+4 +8	1+4 +9	1+4 +10	1+4 +11	
		1	2	3	4	5	6	7	8	9	10	1+4 +7	1+4 +10	1+2 +6	1+2 +5	1+3 +5	1+3 +6	1+2 +8	1+2 +9	1+3 +8	1+3 +9	1+2 +10	1+3 +10	1+4 +8	1+4 +9	1+4 +10	1+4 +11	
Body-Worn	Front	0.016	0.296	0.296	0.268	0.296	0.106	0.297	0.016	0.296	0.299	0.296	0.296	0.300	0.339	0.474	0.296	0.474	0.296	0.297	0.296	0.339	0.296	0.296	0.296	0.296	0.296	0.300
	Rear	0.024	0.296	0.296	0.268	0.296	0.106	0.297	0.024	0.296	0.299	0.296	0.296	0.300	0.339	0.474	0.296	0.474	0.296	0.297	0.296	0.339	0.296	0.296	0.296	0.296	0.296	0.300
	Left	0.024	0.296	0.296	0.268	0.296	0.106	0.297	0.024	0.296	0.299	0.296	0.296	0.300	0.339	0.474	0.296	0.474	0.296	0.297	0.296	0.339	0.296	0.296	0.296	0.296	0.296	0.300
	Right	0.024	0.296	0.296	0.268	0.296	0.106	0.297	0.024	0.296	0.299	0.296	0.296	0.300	0.339	0.474	0.296	0.474	0.296	0.297	0.296	0.339	0.296	0.296	0.296	0.296	0.296	0.300

Table 11.5.2 Total Exposure Ratio (Body-Worn)

Mode	Conf. (Body-Worn)	2G/3G/4G + BT Ant.12 + BT Ant.8	Wi-Fi 2.4G Ant.8	Wi-Fi 2.4G Ant.9	Wi-Fi 2.4G MIMO	Wi-Fi 5G Ant.8	Wi-Fi 5G Ant.9	Wi-Fi 5G MIMO	Body-Worn TER								
		1	2	3	4	5	6	7	1+4+10	1+2+9	1+2+8	1+3+8	1+3+9	1+2+10	1+3+10	1+4+8	1+4+9
		1	2	3	4	5	6	7	1+4+10	1+2+9	1+2+8	1+3+8	1+3+9	1+2+10	1+3+10	1+4+8	1+4+9
Body-Worn	Front	0.018	0.018	0.040	0.038	0.060	0.666	1.166	0.320	0.153	0.303	0.301	0.151	0.308	0.307	0.315	0.165
	Rear	0.024	0.024	0.060	0.143	0.122	2.334	2.354	0.321	0.288	0.286	0.338	0.340	0.282	0.334	0.325	0.327

11.6 Phablet SAR Simultaneous Transmission Analysis

Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required of Hotspot 1g SAR (scaled to maximum output power, including tolerance) < 1.2 W/kg.

Table 11.6.1 Simultaneous Transmission Scenario (Phablet at 0 mm)

Mode	Conf. (Head)	NFC + BT Ant.12 + BT Ant.8	Wi-Fi 2.4G Ant.8	Wi-Fi 2.4G Ant.9	Wi-Fi 2.4G MIMO	Wi-Fi 5G Ant.8	Wi-Fi 5G Ant.9	Wi-Fi 5G MIMO	Wi-Fi 5G Ant.8	Wi-Fi 5G Ant.9	Wi-Fi 5G MIMO	Σ Phablet SAR (W/kg)															
		1	2	3	4	5	6	7	8	9	10	1+4 +7	1+4 +10	1+2 +6	1+2 +5	1+3 +5	1+3 +6	1+2 +8	1+2 +9	1+3 +8	1+3 +9	1+2 +10	1+3 +10	1+4 +8	1+4 +9	1+4 +10	1+4 +11
		1	2	3	4	5	6	7	8	9	10	1+4 +7	1+4 +10	1+2 +6	1+2 +5	1+3 +5	1+3 +6	1+2 +8	1+2 +9	1+3 +8	1+3 +9	1+2 +10	1+3 +10	1+4 +8	1+4 +9	1+4 +10	1+4 +11
Phablet	Top	0.048	0.296	0.296	0.268	0.296	0.106	0.297	0.048	0.296	0.299	0.296	0.296	0.300	0.339	0.474	0.296	0.474	0.296	0.297	0.296	0.339	0.296	0.296	0.296	0.296	0.300
	Bottom	0.048	0.296	0.296	0.268	0.296	0.106	0.297	0.048	0.296	0.299	0.296	0.296	0.300	0.339	0.474	0.296	0.474	0.296	0.297	0.296	0.339	0.296	0.296	0.296	0.296	0.300
	Front	0.048	0.296	0.296	0.268	0.296	0.106	0.297	0.048	0.296	0.299	0.296	0.296	0.300	0.339	0.474	0.296	0.474	0.296	0.297	0.296	0.339	0.296	0.296	0.296	0.296	0.300
	Rear	0.048	0.296	0.296	0.268	0.296	0.106	0.297	0.048	0.296	0.299	0.296	0.296	0.300	0.339	0.474	0.296	0.474	0.296	0.297	0.296	0.339	0.296	0.296	0.296	0.296	0.300

Table 11.6.2 Total Exposure Ratio (Phablet)

Mode	Conf. (Head)	NFC + BT Ant.12 + BT Ant.8	Wi-Fi 2.4G Ant.8	Wi-Fi 2.4G Ant.9	Wi-Fi 2.4G MIMO	Wi-Fi 5G Ant.8	Wi-Fi 5G Ant.9	Wi-Fi 5G MIMO	Phablet TER								
		1	2	3	4	5	6	7	1+4+10	1+2+9	1+2+8	1+3+8	1+3+9	1+2+10	1+3+10	1+4+8	1+4+9
		1	2	3	4	5	6	7	1+4+10	1+2+9	1+2+8	1+3+8	1+3+9	1+2+10	1+3+10	1+4+8	1+4+9
Phablet	Top	0.048	0.292	0.292	0.268	0.292	0.111	0.297	0.320	0.156	0.314	0.312	0.152	0.319	0.318	0.324	0.163
	Bottom	0.048	0.292	0.292	0.268	0.292	0.111	0.297	0.320	0.156	0.314	0.312	0.152	0.319	0.318	0.324	0.163
	Front	0.048	0.292	0.292	0.268	0.292	0.111	0.297	0.320	0.156	0.314	0.312	0.152	0.319	0.318	0.324	0.163
	Rear	0.048	0.169	0.271	0.197	0.234	0.234	0.254	0.230	0.250	0.288	0.318	0.318	0.284	0.312	0.297	0.299
	Left	0.054	0.337	0.337	0.344	0.344	0.344	0.344	0.439	0.439	0.439	0.439	0.439	0.439	0.439	0.439	0.439
	Right	0.054	0.390	0.390	0.392	0.392	0.392	0.392	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481	0.481

11.7 Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528-2013 Section 6.3.4.1.

12. SAR MEASUREMENT VARIABILITY

12.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1. When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2. A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~10% from the 1-g SAR limit).
3. A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .
4. Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5. The same procedures should be adapted for measurements according to extremity exposure limits by applying a factor of 2.5 for extremity exposure to the corresponding SAR thresholds.

12.2 Measurement Uncertainty

The measured SAR was < 1.5 W/kg for 1g and < 3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

13. EQUIPMENT LIST

Table 13.1 Test Equipment Calibration

	Type	Manufacturer	Model	Cal.Date	Next.Cal.Date	S/N
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	Robot	SPEAG	TX60L	N/A	N/A	F12/5LP5A1/A/01
☒	Robot	SPEAG	TX90XL	N/A	N/A	F13/5RR2A1/A/01
☒	Robot	SPEAG	TX60L	N/A	N/A	F15/50NHA1/A/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F12/5LP5A1/C/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F13/5RR2A1/C/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F15/50NHA1/C/01
☒	Joystick	SPEAG	N/A	N/A	N/A	S-12030401
☒	Joystick	SPEAG	N/A	N/A	N/A	S-13200990
☒	Joystick	SPEAG	N/A	N/A	N/A	D21142605A
☒	Intel Xeon W-2 255 3.70 GHz Windows 10 Pro	N/A	N/A	N/A	N/A	N/A
☒	Intel Core i7-3 770 3.40 GHz Windows 7 Professional	N/A	N/A	N/A	N/A	N/A
☒	Intel Core i7-8 700K 3.70 GHz Windows 10 Pro	N/A	N/A	N/A	N/A	N/A
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	mmWave Device Holder	SPEAG	QD 015 050 AA	N/A	N/A	1007
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1679
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1785
☒	2mm Oval Phantom ELI5	SPEAG	QDIVA001BB	N/A	N/A	1223
☒	mmWave Phantom	SPEAG	QD 015 025 CA	N/A	N/A	1050
☒	Data Acquisition Electronics	SPEAG	DAE3V1	2023-11-17	2024-11-17	520
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2024-02-16	2025-02-16	1391
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2023-08-23	2024-08-23	1396
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2023-09-20	2024-09-20	1453
☒	Dosimetric E-Field Probe	SPEAG	ES3DV3	2024-01-22	2025-01-22	3327
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2023-07-17	2024-07-17	3930
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2024-03-18	2025-03-18	3916
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2023-10-26	2024-10-26	3933
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2023-11-27	2024-11-27	7368
☒	E-Field mm-Wave Probe	SPEAG	EUmmWV3	2023-11-16	2024-11-16	9400
				2024-07-12	2025-07-12	
☒	Confined Loop Antenna (13 MHz)	SPEAG	CLA13	2023-11-14	2024-11-14	1030
☒	2 450 MHz SAR Dipole	SPEAG	D2450V2	2023-07-19	2025-07-19	726
☒	5 GHz SAR Dipole	SPEAG	D5GHzV2	2023-11-23	2025-11-23	1212
☒	6.5 GHz SAR Dipole	SPEAG	D6.5GHzV2	2023-09-21	2025-09-21	1017
☒	7 GHz SAR Dipole	SPEAG	D7GHzV2	2023-11-16	2025-11-16	1015
☒	Horn Antenna (10 GHz)	SPEAG	5G Verification Source 10 GHz	2024-01-17	2025-01-17	1026
☒	Signal Generator	Agilent	E4438C	2023-06-23	2024-06-23	US41461520
☒	Amplifier	EMPOWER	BBS3Q7ELU	2023-06-23	2024-06-23	1020
☒	High Power RF Amplifier	EMPOWER	BBS3Q8CCJ	2023-06-23	2024-06-23	1005
☒	Power Meter	HP	EPM-442A	2023-12-15	2024-12-15	GB37170267
☒	Power Meter	Anritsu	ML2488B	2023-12-15	2024-12-15	0846003
☒	Power Sensor	Anritsu	MA2472D	2023-12-15	2024-12-15	0845419
☒	Power Sensor	HP	8481A	2023-12-15	2024-12-15	2702A65976
☒	Power Sensor	HP	8481A	2023-12-15	2024-12-15	2702A61707
☒	Directional Coupler	HP	772D	2023-12-15	2024-12-15	2839A00902
☒	Low Pass Filter 3.0 GHz	MICROLAB	LA-30N	2023-06-23	2024-06-23	2
☒	Low Pass Filter 6.0 GHz	MICROLAB	LA-60N	2023-12-15	2024-12-15	03942
☒	Mini Circuits Low Pass Filter DC-8 400 MHz	Mini Circuits	VLF-8400+	2023-12-15	2024-12-15	15542
☒	Attenuators(10 dB)	WEINSCHEL	23-10-34	2023-12-15	2024-12-15	BP4387
☒	Attenuators	Saluki	3.5TS2-3dB-26.5G	2023-06-23	2024-06-23	21090703
☒	Dielectric Probe kit	SPEAG	DAKS-12	2023-09-21	2024-09-21	1040
☒	Dielectric Probe kit	SPEAG	R60	2023-09-21	2024-09-21	22323001
☒	Dielectric Probe kit	SPEAG	DAK-3.5	2023-07-17	2024-07-17	1046
☒	Dielectric Probe kit	SPEAG	R140	2023-07-31	2024-07-31	0101213

NOTE(S):

1. The E-field probe was calibrated by SPEAG, by temperature measurement procedure. Dipole Verification measurement is performed by Dt&C before each test. The brain and muscle simulating material are calibrated by Dt&C using the dielectric probe system and network analyzer to determine the conductivity and permittivity (dielectric constant) of the brain and muscle-equivalent material. Each equipment item was used solely within its respective calibration period.
2. CBT(Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

14. MEASUREMENT UNCERTAINTIES

13 MHz SAR (SN: 3933)

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U_i 1 g	Ci x U_i 10 g	Vi or Veff
Measurement System										
Probe calibration	6.7	Normal	1	1	1	6.7	6.7	6.7	6.7	∞
Axial isotropy	4.0	Rectangular	$\sqrt{3}$	1	1	2.7	2.7	2.7	2.7	∞
Hemispherical isotropy	9.6	Rectangular	$\sqrt{3}$	1	1	5.5	5.5	5.5	5.5	∞
Boundary Effects	0.8	Rectangular	$\sqrt{3}$	1	1	0.46	0.46	0.46	0.46	∞
Probe Linearity	4.7	Rectangular	$\sqrt{3}$	1	1	2.7	2.7	2.7	2.7	∞
Probe modulation response	2.4	Rectangular	$\sqrt{3}$	1	1	1.4	1.4	1.4	1.4	∞
Detection limits	0.25	Rectangular	$\sqrt{3}$	1	1	0.14	0.14	0.14	0.14	∞
Readout Electronics	1.0	Normal	1	1	1	1.0	1.0	1.0	1.0	∞
Response time	0.8	Rectangular	$\sqrt{3}$	1	1	0.46	0.46	0.46	0.46	∞
Integration time	2.6	Rectangular	$\sqrt{3}$	1	1	1.5	1.5	1.5	1.5	∞
RF Ambient Conditions – Noise	3.0	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	1.7	1.7	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	1.7	1.7	∞
Probe Positioner	0.4	Rectangular	$\sqrt{3}$	1	1	0.23	0.23	0.23	0.23	∞
Probe Positioning	2.9	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	1.7	1.7	∞
Spatial x-y-Resolution	10.0	Rectangular	$\sqrt{3}$	1	1	5.8	5.8	5.8	5.8	∞
Fast SAR z-Approximation	7.0	Rectangular	$\sqrt{3}$	1	1	4.0	4.0	4.0	4.0	∞
Test Sample Related										
Device Positioning	2.9	Normal	1	1	1	2.9	2.9	2.9	2.9	145
Device Holder	3.6	Normal	1	1	1	3.6	3.6	3.6	3.6	5
Power Drift	5.0	Rectangular	$\sqrt{3}$	1	1	2.9	2.9	2.9	2.9	∞
SAR Scaling	2.0	Rectangular	$\sqrt{3}$	1	1	1.2	1.2	1.2	1.2	∞
Physical Parameters										
Phantom Shell	7.6	Rectangular	$\sqrt{3}$	1	1	4.4	4.4	4.4	4.4	∞
Liquid conductivity (Target)	5.0	Rectangular	$\sqrt{3}$	0.64	0.43	1.8	1.2	1.2	0.5	∞
Liquid conductivity (Meas.)	3.5	Normal	1	0.78	0.71	2.7	2.5	2.1	1.8	10
Liquid permittivity (Target)	5.0	Rectangular	$\sqrt{3}$	0.60	0.49	1.7	1.4	1.0	0.7	∞
Liquid permittivity (Meas.)	3.8	Normal	1	0.23	0.26	0.87	1.0	0.20	0.26	10
Temp. unc. - Conductivity	1.9	Rectangular	$\sqrt{3}$	0.78	0.71	0.86	0.78	0.67	0.55	∞
Temp. unc. - Permittivity	2.0	Rectangular	$\sqrt{3}$	0.23	0.26	0.27	0.30	0.06	0.08	∞
Combined Standard Uncertainty						14	14			330
Expanded Uncertainty (k=2)						28	28			

$$\begin{aligned}
 U(1\text{ g}) &= k \cdot u_c \\
 &= 2 \cdot 14\% \\
 &= 28\% \text{ (The confidence level is about 95 \% } k = 2) \\
 U(10\text{ g}) &= k \cdot u_c \\
 &= 2 \cdot 14\% \\
 &= 28\% \text{ (The confidence level is about 95 \% } k = 2)
 \end{aligned}$$

750 ~ 2 600 MHz SAR (SN: 3327)

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	Vi or Veff
Measurement System										
Probe calibration	6.0	Normal	1	1	1	6.0	6.0	6.0	6.0	∞
Axial isotropy	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Hemispherical isotropy	9.6	Rectangular	√3	1	1	5.5	5.5	5.5	5.5	∞
Boundary Effects	0.8	Rectangular	√3	1	1	0.46	0.46	0.46	0.46	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Probe modulation response	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Detection limits	0.3	Rectangular	√3	1	1	0.14	0.14	0.14	0.14	∞
Readout Electronics	1.0	Normal	1	1	1	1.0	1.0	1.0	1.0	∞
Response time	0.8	Rectangular	√3	1	1	0.46	0.46	0.46	0.46	∞
Integration time	2.6	Rectangular	√3	1	1	1.5	1.5	1.5	1.5	∞
RF Ambient Conditions – Noise	3.0	Rectangular	√3	1	1	1.7	1.7	1.7	1.7	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	√3	1	1	1.7	1.7	1.7	1.7	∞
Probe Positioner	0.4	Rectangular	√3	1	1	0.23	0.23	0.23	0.23	∞
Probe Positioning	2.9	Rectangular	√3	1	1	1.7	1.7	1.7	1.7	∞
Spatial x-y-Resolution	10.0	Rectangular	√3	1	1	5.8	5.8	5.8	5.8	∞
Fast SAR z-Approximation	7.0	Rectangular	√3	1	1	4.0	4.0	4.0	4.0	∞
Test Sample Related										
Device Positioning	3.3	Normal	1	1	1	3.3	3.3	3.3	3.3	145
Device Holder	2.4	Normal	1	1	1	2.4	2.4	2.4	2.4	5
Power Drift	5.0	Rectangular	√3	1	1	2.9	2.9	2.9	2.9	∞
SAR Scaling	2.0	Rectangular	√3	1	1	1.2	1.2	1.2	1.2	∞
Physical Parameters										
Phantom Shell	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	1.8	1.2	1.2	0.5	∞
Liquid conductivity (Meas.)	3.3	Normal	1	0.78	0.71	2.6	2.3	2.0	1.7	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	1.7	1.4	1.0	0.7	∞
Liquid permittivity (Meas.)	3.2	Normal	1	0.23	0.26	0.74	0.8	0.17	0.22	10
Temp. unc. - Conductivity	2.0	Rectangular	√3	0.78	0.71	0.90	0.82	0.70	0.58	∞
Temp. unc. - Permittivity	2.0	Rectangular	√3	0.23	0.26	0.27	0.30	0.06	0.08	∞
Combined Standard Uncertainty						14	14			330
Expanded Uncertainty (k=2)						28	28			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 14\%$$

= 28 % (The confidence level is about 95 % $k = 2$)

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 14\%$$

= 28 % (The confidence level is about 95 % $k = 2$)

1 450 ~ 2 600 MHz SAR (SN: 3930, 3916)

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	Vi or Veff
Measurement System										
Probe calibration	6.0	Normal	1	1	1	6.0	6.0	6.0	6.0	∞
Axial isotropy	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Hemispherical isotropy	9.6	Rectangular	√3	1	1	5.5	5.5	5.5	5.5	∞
Boundary Effects	0.8	Rectangular	√3	1	1	0.46	0.46	0.46	0.46	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Probe modulation response	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Detection limits	0.25	Rectangular	√3	1	1	0.14	0.14	0.14	0.14	∞
Readout Electronics	1.0	Normal	1	1	1	1.0	1.0	1.0	1.0	∞
Response time	0.8	Rectangular	√3	1	1	0.46	0.46	0.46	0.46	∞
Integration time	2.6	Rectangular	√3	1	1	1.5	1.5	1.5	1.5	∞
RF Ambient Conditions – Noise	3.0	Rectangular	√3	1	1	1.8	1.8	1.8	1.8	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	√3	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioner	0.4	Rectangular	√3	1	1	0.23	0.23	0.23	0.23	∞
Probe Positioning	2.9	Rectangular	√3	1	1	1.7	1.7	1.7	1.7	∞
Spatial x-y-Resolution	10.0	Rectangular	√3	1	1	5.8	5.8	5.8	5.8	∞
Fast SAR z-Approximation	7.0	Rectangular	√3	1	1	4.0	4.0	4.0	4.0	∞
Test Sample Related										
Device Positioning	2.9	Normal	1	1	1	2.9	2.9	2.9	2.9	145
Device Holder	3.6	Normal	1	1	1	3.6	3.6	3.6	3.6	5
Power Drift	5.0	Rectangular	√3	1	1	2.9	2.9	2.9	2.9	∞
SAR Scaling	2.0	Rectangular	√3	1	1	1.2	1.2	1.2	1.2	∞
Physical Parameters										
Phantom Shell	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	1.8	1.2	1.2	0.5	∞
Liquid conductivity (Meas.)	4.2	Normal	1	0.78	0.71	3.3	3.0	2.4	2.0	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	1.7	1.4	1.0	0.7	∞
Liquid permittivity (Meas.)	4.0	Normal	1	0.23	0.26	0.92	1.0	0.21	0.26	10
Temp. unc. - Conductivity	2.1	Rectangular	√3	0.78	0.71	0.95	0.86	0.67	0.55	∞
Temp. unc. - Permittivity	2.1	Rectangular	√3	0.23	0.26	0.28	0.32	0.06	0.08	∞
Combined Standard Uncertainty						13	13			330
Expanded Uncertainty (k=2)						26	26			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 13\%$$

= 26 % (The confidence level is about 95 % $k = 2$)

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 13\%$$

= 26 % (The confidence level is about 95 % $k = 2$)

3 500 ~ 5 800 MHz SAR (SN: 3933)

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	Vi or Veff
Measurement System										
Probe calibration	6.6	Normal	1	1	1	6.6	6.6	6.6	6.6	∞
Axial isotropy	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Hemispherical isotropy	9.6	Rectangular	√3	1	1	5.5	5.5	5.5	5.5	∞
Boundary Effects	0.8	Rectangular	√3	1	1	0.46	0.46	0.46	0.46	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Probe modulation response	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Detection limits	0.25	Rectangular	√3	1	1	0.14	0.14	0.14	0.14	∞
Readout Electronics	1.0	Normal	1	1	1	1.0	1.0	1.0	1.0	∞
Response time	0.8	Rectangular	√3	1	1	0.46	0.46	0.46	0.46	∞
Integration time	2.6	Rectangular	√3	1	1	1.5	1.5	1.5	1.5	∞
RF Ambient Conditions – Noise	3.0	Rectangular	√3	1	1	1.8	1.8	1.8	1.8	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	√3	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioner	0.4	Rectangular	√3	1	1	0.23	0.23	0.23	0.23	∞
Probe Positioning	2.9	Rectangular	√3	1	1	1.7	1.7	1.7	1.7	∞
Spatial x-y-Resolution	10.0	Rectangular	√3	1	1	5.8	5.8	5.8	5.8	∞
Fast SAR z-Approximation	7.0	Rectangular	√3	1	1	4.0	4.0	4.0	4.0	∞
Test Sample Related										
Device Positioning	2.9	Normal	1	1	1	2.9	2.9	2.9	2.9	145
Device Holder	3.6	Normal	1	1	1	3.6	3.6	3.6	3.6	5
Power Drift	5.0	Rectangular	√3	1	1	2.9	2.9	2.9	2.9	∞
SAR Scaling	2.0	Rectangular	√3	1	1	1.2	1.2	1.2	1.2	∞
Physical Parameters										
Phantom Shell	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	1.8	1.2	1.2	0.5	∞
Liquid conductivity (Meas.)	3.8	Normal	1	0.78	0.71	3.0	2.7	2.3	1.9	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	1.7	1.4	1.0	0.7	∞
Liquid permittivity (Meas.)	3.9	Normal	1	0.23	0.26	0.90	1.0	0.21	0.26	10
Temp. unc. - Conductivity	2.0	Rectangular	√3	0.78	0.71	0.90	0.82	0.70	0.58	∞
Temp. unc. - Permittivity	1.8	Rectangular	√3	0.23	0.26	0.24	0.27	0.05	0.07	∞
Combined Standard Uncertainty						14	13			330
Expanded Uncertainty (k=2)						28	26			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 14\%$$

$$= 28\% \text{ (The confidence level is about 95 \% } k = 2)$$

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 13\%$$

$$= 26\% \text{ (The confidence level is about 95 \% } k = 2)$$

750 ~ 2 600 MHz SAR (SN: 7368)

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U_i 1 g	Ci x U_i 10 g	Vi or Veff
Measurement System										
Probe calibration	6.0	Normal	1	1	1	6.0	6.0	6.0	6.0	∞
Axial isotropy	4.7	Rectangular	$\sqrt{3}$	1	1	2.7	2.7	2.7	2.7	∞
Hemispherical isotropy	9.6	Rectangular	$\sqrt{3}$	1	1	5.5	5.5	5.5	5.5	∞
Boundary Effects	0.8	Rectangular	$\sqrt{3}$	1	1	0.46	0.46	0.46	0.46	∞
Probe Linearity	4.7	Rectangular	$\sqrt{3}$	1	1	2.7	2.7	2.7	2.7	∞
Probe modulation response	2.4	Rectangular	$\sqrt{3}$	1	1	1.4	1.4	1.4	1.4	∞
Detection limits	0.3	Rectangular	$\sqrt{3}$	1	1	0.14	0.14	0.14	0.14	∞
Readout Electronics	1.0	Normal	1	1	1	1.0	1.0	1.0	1.0	∞
Response time	0.8	Rectangular	$\sqrt{3}$	1	1	0.46	0.46	0.46	0.46	∞
Integration time	2.6	Rectangular	$\sqrt{3}$	1	1	1.5	1.5	1.5	1.5	∞
RF Ambient Conditions – Noise	3.0	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	1.7	1.7	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	1.7	1.7	∞
Probe Positioner	0.4	Rectangular	$\sqrt{3}$	1	1	0.23	0.23	0.23	0.23	∞
Probe Positioning	2.9	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	1.7	1.7	∞
Spatial x-y-Resolution	10.0	Rectangular	$\sqrt{3}$	1	1	5.8	5.8	5.8	5.8	∞
Fast SAR z-Approximation	7.0	Rectangular	$\sqrt{3}$	1	1	4.0	4.0	4.0	4.0	∞
Test Sample Related										
Device Positioning	2.9	Normal	1	1	1	2.9	2.9	2.9	2.9	145
Device Holder	3.6	Normal	1	1	1	3.6	3.6	3.6	3.6	5
Power Drift	5.0	Rectangular	$\sqrt{3}$	1	1	2.9	2.9	2.9	2.9	∞
SAR Scaling	2.0	Rectangular	$\sqrt{3}$	1	1	1.2	1.2	1.2	1.2	∞
Physical Parameters										
Phantom Shell	7.6	Rectangular	$\sqrt{3}$	1	1	4.4	4.4	4.4	4.4	∞
Liquid conductivity (Target)	5.0	Rectangular	$\sqrt{3}$	0.64	0.43	1.8	1.2	1.2	0.5	∞
Liquid conductivity (Meas.)	3.5	Normal	1	0.78	0.71	2.7	2.5	2.1	1.8	10
Liquid permittivity (Target)	5.0	Rectangular	$\sqrt{3}$	0.60	0.49	1.7	1.4	1.0	0.7	∞
Liquid permittivity (Meas.)	3.8	Normal	1	0.23	0.26	0.87	1.0	0.20	0.26	10
Temp. unc. - Conductivity	1.9	Rectangular	$\sqrt{3}$	0.78	0.71	0.86	0.78	0.67	0.55	∞
Temp. unc. - Permittivity	2.0	Rectangular	$\sqrt{3}$	0.23	0.26	0.27	0.30	0.06	0.08	∞
Combined Standard Uncertainty						13	13			330
Expanded Uncertainty (k=2)						26	26			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 13\%$$

= 26 % (The confidence level is about 95 % $k = 2$)

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 13\%$$

= 26% (The confidence level is about 95 % $k = 2$)

3 500 ~ 5 800 MHz SAR (SN: 7368)

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U_i 1 g	Ci x U_i 10 g	Vi or Veff
Measurement System										
Probe calibration	6.6	Normal	1	1	1	6.6	6.6	6.6	6.6	∞
Axial isotropy	4.7	Rectangular	$\sqrt{3}$	1	1	2.7	2.7	2.7	2.7	∞
Hemispherical isotropy	9.6	Rectangular	$\sqrt{3}$	1	1	5.5	5.5	5.5	5.5	∞
Boundary Effects	0.8	Rectangular	$\sqrt{3}$	1	1	0.46	0.46	0.46	0.46	∞
Probe Linearity	4.7	Rectangular	$\sqrt{3}$	1	1	2.7	2.7	2.7	2.7	∞
Probe modulation response	2.4	Rectangular	$\sqrt{3}$	1	1	1.4	1.4	1.4	1.4	∞
Detection limits	0.25	Rectangular	$\sqrt{3}$	1	1	0.14	0.14	0.14	0.14	∞
Readout Electronics	1.0	Normal	1	1	1	1.0	1.0	1.0	1.0	∞
Response time	0.8	Rectangular	$\sqrt{3}$	1	1	0.46	0.46	0.46	0.46	∞
Integration time	2.6	Rectangular	$\sqrt{3}$	1	1	1.5	1.5	1.5	1.5	∞
RF Ambient Conditions – Noise	3.0	Rectangular	$\sqrt{3}$	1	1	1.8	1.8	1.8	1.8	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	$\sqrt{3}$	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioner	0.4	Rectangular	$\sqrt{3}$	1	1	0.23	0.23	0.23	0.23	∞
Probe Positioning	2.9	Rectangular	$\sqrt{3}$	1	1	1.7	1.7	1.7	1.7	∞
Spatial x-y-Resolution	10.0	Rectangular	$\sqrt{3}$	1	1	5.8	5.8	5.8	5.8	∞
Fast SAR z-Approximation	7.0	Rectangular	$\sqrt{3}$	1	1	4.0	4.0	4.0	4.0	∞
Test Sample Related										
Device Positioning	2.9	Normal	1	1	1	2.9	2.9	2.9	2.9	145
Device Holder	3.6	Normal	1	1	1	3.6	3.6	3.6	3.6	5
Power Drift	5.0	Rectangular	$\sqrt{3}$	1	1	2.9	2.9	2.9	2.9	∞
SAR Scaling	2.0	Rectangular	$\sqrt{3}$	1	1	1.2	1.2	1.2	1.2	∞
Physical Parameters										
Phantom Shell	7.6	Rectangular	$\sqrt{3}$	1	1	4.4	4.4	4.4	4.4	∞
Liquid conductivity (Target)	5.0	Rectangular	$\sqrt{3}$	0.64	0.43	1.8	1.2	1.2	0.5	∞
Liquid conductivity (Meas.)	3.8	Normal	1	0.78	0.71	3.0	2.7	2.3	1.9	10
Liquid permittivity (Target)	5.0	Rectangular	$\sqrt{3}$	0.60	0.49	1.7	1.4	1.0	0.7	∞
Liquid permittivity (Meas.)	3.8	Normal	1	0.23	0.26	0.87	1.0	0.20	0.26	10
Temp. unc. - Conductivity	1.8	Rectangular	$\sqrt{3}$	0.78	0.71	0.81	0.74	0.63	0.52	∞
Temp. unc. - Permittivity	1.8	Rectangular	$\sqrt{3}$	0.23	0.26	0.24	0.27	0.05	0.07	∞
Combined Standard Uncertainty						14	13			330
Expanded Uncertainty (k=2)						28	26			

$$\begin{aligned}
 U(1\text{ g}) &= k \cdot u_c \\
 &= 2 \cdot 14\% \\
 &= 28\% \text{ (The confidence level is about 95 \% } k = 2) \\
 U(10\text{ g}) &= k \cdot u_c \\
 &= 2 \cdot 14\% \\
 &= 28\% \text{ (The confidence level is about 95 \% } k = 2)
 \end{aligned}$$

6 500 MHz SAR (SN: 7368)

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	V _i
Measurement System										
Probe calibration	9.3	Normal	1	1	1	9.3	9.3	9.3	9.3	∞
Axial isotropy	4.7	Rectangular	√3	1	1	1.9	1.9	1.9	1.9	∞
Hemispherical isotropy	9.6	Rectangular	√3	1	1	3.9	3.9	3.9	3.9	∞
Boundary Effects	2.0	Rectangular	√3	1	1	1.2	1.2	1.2	1.2	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Probe modulation response	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Detection limits	1.0	Rectangular	√3	1	1	0.6	0.6	0.6	0.6	∞
Readout Electronics	0.3	Normal	1	1	1	0.3	0.3	0.3	0.3	∞
Response time	0.8	Rectangular	√3	1	1	0.5	0.5	0.5	0.5	∞
Integration time	2.6	Rectangular	√3	1	1	1.5	1.5	1.5	1.5	∞
RF Ambient Conditions – Noise	3.0	Rectangular	√3	1	1	1.7	1.7	1.7	1.7	∞
RF Ambient Conditions – Reflections	3.0	Rectangular	√3	1	1	1.7	1.7	1.7	1.7	∞
Probe Positioner	0.04	Rectangular	√3	1	1	0.0	0.0	0.0	0.0	∞
Probe Positioning	1.6	Rectangular	√3	1	1	0.9	0.9	0.9	0.9	∞
Inter/Extrapolation and Averaging	6.0	Rectangular	√3	1	1	3.5	3.5	3.5	3.8	∞
Test Sample Related										
Device Positioning	2.9	Normal	1	1	1	2.9	2.9	2.9	2.9	145
Device Holder	3.6	Normal	1	1	1	3.6	3.6	3.6	3.6	5
Power Drift	5.0	Rectangular	√3	1	1	2.9	2.9	2.9	2.9	∞
SAR Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	0.0	0.0	∞
Physical Parameters										
Phantom Uncertainty	6.6	Rectangular	√3	1	1	3.8	3.8	3.8	3.8	∞
SAR correction	1.9	Normal	1	1	1	1.9	1.9	1.9	1.9	∞
Liquid conductivity (Meas.)	2.5	Normal	1	0.78	0.71	2.0	1.8	1.6	1.3	10
Liquid permittivity (Meas.)	2.5	Normal	1	0.23	0.26	0.6	0.7	0.2	0.2	10
Temp. unc. - Conductivity	3.4	Rectangular	√3	0.78	0.71	1.5	1.4	1.2	1.0	∞
Temp. unc. - Permittivity	0.4	Rectangular	√3	0.23	0.26	0.1	0.1	0.02	0.03	∞
Combined Standard Uncertainty						14	14			330
Expanded Uncertainty (k=2)						28	28			

$U(1\text{ g}) = k \cdot u_c$
 $= 2 \cdot 14\%$
 $= 28\%$ (The confidence level is about 95 % $k = 2$)
 $U(10\text{ g}) = k \cdot u_c$
 $= 2 \cdot 14\%$
 $= 28\%$ (The confidence level is about 95 % $k = 2$)

6 500 MHz APD (SN: 7368)

Symbol	Error Description	Uncertainty value	Probability Distribution	Divisor	(Ci) (1 g) / (1 cm ²)	(Ci) (8 g/10 g) / (4 cm ²)	Std. Unc. (1 g) / (1 cm ²)	Std. Unc. (8 g/10 g) / (4 cm ²)
psSAR	Module SAR V16.2 (Table 6.3.3)	±14.2/14.1%	Normal	1	1	1	±14.2%	±14.1%
PDC	Power Density Conversion	±13.5%	Rectangular	√3	1	1	±7.8%	±7.8%

u(ΔSAR)	Combined Uncertainty						±16.2%	±16.9%
U	Expanded Uncertainty In dB						±32.4% ±1.2dB	±32.2% ±1.2dB

6 500 MHz Incident Power Density (SN: 9400)

Error Description	Unc. (± dB)	Probability Distribution	Divisor	(Ci)	U_i (± dB)	V_i
Measurement System						
Calibration	0.49	Normal	1	1	0.49	∞
Probe corection	0.00	Rectangular	√3	1	0.00	∞
Frequency response (BW =<1GHz)	0.20	Rectangular	√3	1	0.12	∞
Sensor cross coupling	0.00	Rectangular	√3	1	0.00	∞
Isotropy	0.50	Rectangular	√3	1	0.29	∞
Linearity	0.20	Rectangular	√3	1	0.12	∞
Probe scatering	0.00	Rectangular	1	1	0.00	∞
Probe positioning offset	0.30	Rectangular	√3	1	0.17	∞
Probe positioning repeatability	0.04	Rectangular	√3	1	0.02	∞
Sensor mechanical offset	0.00	Rectangular	√3	1	0.00	∞
Probe spatial resolution	0.00	Rectangular	√3	1	0.00	∞
Field impedance dependance	0.00	Rectangular	√3	1	0.00	∞
Measurement drift	0.05	Rectangular	√3	1	0.03	∞
Amplitude and phase noise	0.04	Rectangular	√3	1	0.02	∞
Measurement area truncation	0.00	Rectangular	√3	1	0.00	∞
Data acquisition	0.03	Normal	1	1	0.03	∞
Sampling	0.00	Rectangular	√3	1	0.00	∞
Field reconstruction	0.60	Rectangular	√3	1	0.35	∞
Signal-to-Noise Ratio	0.00	Rectangular	√3	1	0.00	∞
FTE/MEO	0.00	Rectangular	√3	1	0.00	∞
Power density scaling	-	Rectangular	√3	1	-	∞
Spatial averaging	0.10	Rectangular	√3	1	0.06	∞
Test Sample Related						
Probe coupling with DUT	0.00	Rectangular	√3	1	0.00	∞
Modulation response	0.40	Rectangular	√3	1	0.23	∞
Integration time	0.00	Rectangular	√3	1	0.00	∞
Response time	0.00	Rectangular	√3	1	0.00	∞
Device holder influence	0.10	Rectangular	√3	1	0.06	∞
DUT alignment	0.00	Rectangular	√3	1	0.00	∞
RF ambient conditions	0.04	Rectangular	√3	1	0.02	∞
Laboratory Temperature	0.05	Rectangular	√3	1	0.03	∞
Laboratory Reflections	0.04	Rectangular	√3	1	0.02	∞
Immunity/secondary reception	0.00	Rectangular	√3	1	0.00	∞
Drift of the DUT	-	Rectangular	√3	1	0.00	∞
Combined Standard Uncertainty					0.75	∞
Expanded Uncertainty (k=2)					1.51	

15. CONCLUSION

Measurement Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC. These measurements are taken to simulate the RF effects exposure under the worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters subject to the test. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are every complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role impossible biological effect are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease).

Because innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

16. REFERENCES

- [1] Federal Communications Commission, ET Docket 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, Aug. 1996.
- [2] ANSI/IEEE C95.1-2005, American National Standard safety levels with respect to human exposure to radiofrequency electromagnetic fields, 3kHz to 300GHz, New York: IEEE, 2006.
- [3] ANSI/IEEE C95.1-1992, American National Standard safety levels with respect to human exposure to radiofrequency electromagnetic fields, 3kHz to 300GHz, New York: IEEE, Sept. 1992.
- [4] ANSI/IEEE C95.3-2002, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave, New York: IEEE, December 2002.
- [5] IEEE Standards Coordinating Committee 39 –Standards Coordinating Committee 34 – IEEE Std. 1528-2003, Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices.
- [6] NCRP, National Council on Radiation Protection and Measurements, Biological Effects and Exposure Criteria for Radio Frequency Electromagnetic Fields, NCRP Report No. 86, 1986. Reprinted Feb. 1995.
- [7] T. Schmid, O. Egger, N. Kuster, Automated E-field scanning system for dosimetric assessments, IEEE Transaction on Microwave Theory and Techniques, vol. 44, Jan. 1996, pp. 105-113.
- [8] K. Pokovic, T. Schmid, N. Kuster, Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies, ICECOM97, Oct. 1997, pp. -124.
- [9] K. Pokovic, T. Schmid, and N. Kuster, E-field Probe with improved isotropy in brain simulating liquids, Proceedings of the ELMAR, Zadar, Croatia, June 23-25, 1996, pp. 172-175.
- [10] Schmid& Partner Engineering AG, Application Note: Data Storage and Evaluation, June 1998, p2.
- [11] V. Hombach, K. Meier, M. Burkhardt, E. Kuhn, N. Kuster, The Dependence of EM Energy Absorption upon Human Modeling at 900 MHz, IEEE Transaction on Microwave Theory and Techniques, vol. 44 no. 10, Oct.1996, pp. 1865-1873.
- [12] N. Kuster and Q. Balzano, Energy absorption mechanism by biological bodies in the near field of dipole antennas above 300MHz, IEEE Transaction on Vehicular Technology, vol. 41, no. 1, Feb. 1992, pp. 17-23.
- [13] G. Hartsgrrove, A. Kraszewski, A. Surowiec, Simulated Biological Materials for Electromagnetic Radiation Absorption Studies, University of Ottawa, Bio electromagnetics, Canada: 1987, pp. 29-36.
- [14] Q. Balzano, O. Garay, T. Manning Jr., Electromagnetic Energy Exposure of Simulated Users of Portable Cellular Telephones, IEEE Transactions on Vehicular Technology, vol. 44, no.3, Aug. 1995.
- [15] W. Gander, Computer mathematick, Birkhaeuser, Basel, 1992.
- [16] W.H. Press, S.A. Teukolsky, W.T. Vetterling, and B.P. Flannery, Numerical Recipes in C, The Art of Scientific Computing, Second edition, Cambridge University Press, 1992.
- [17] N. Kuster, R. Kastle, T. Schmid, Dosimetric evaluation of mobile communications equipment with known precision, IEEE Transaction on Communications, vol. E80-B, no. 5, May 1997, pp. 645-652.
- [18] CENELEC CLC/SC111B, European Prestandard (prENV 50166-2), Human Exposure to Electromagnetic Fields High-frequency: 10kHz-300GHz, Jan. 1995.
- [19] Prof. Dr. Niels Kuster, ETH, Eidgenössische Technische Hochschule Zürich, Dosimetric Evaluation of the Cellular Phone.

- [20] IEC 62209-1, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 1: Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300MHz to 3 GHz), Feb. 2005.
- [21] Industry Canada RSS-102 Radio Frequency Exposure Compliance of Radio communication Apparatus (All Frequency Bands) Issue 5, March 2015.
- [22] Health Canada Safety Code 6 Limits of Human Exposure to Radio Frequency Electromagnetic Fields in the Frequency Range from 3 kHz – 300 GHz, 2009
- [23] FCC SAR Test Procedures for 2G-3G Devices, Mobile Hotspot and UMPC Devices KDB Publications 941225,D01-D07
- [24] SAR Measurement procedures for IEEE 802.11a/b/g KDB Publication 248227 D01v02
- [25] FCC SAR Considerations for Handsets with Multiple Transmitters and Antennas, KDB Publications 648474D02-D04
- [26] FCC SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers, FCC KDB Publication 616217 D04
- [27] FCC SAR Measurement and Reporting Requirements for 100MHz – 6 GHz, KDB Publications 865664 D01-D02
- [28] FCC General RF Exposure Guidance and SAR Procedures for Dongles, KDB Publication 447498, D01-D02
- [29] 615223 D01 802 16e WI-Max SAR Guidance v01, Nov. 13, 2009
- [30] Anexo à Resolução No. 533, de 10 de September de 2009.
- [31] IEC 62209-2, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body(frequency range of 30 MHz to 6 GHz), Mar. 2010.

APPENDIX A. – Probe Calibration Data

Calibration Laboratory of

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration ServiceAccredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

Dt&C

Gyeonggi-do, Republic of Korea

Certificate No.

ES-3327_Jan24

CALIBRATION CERTIFICATE

Object ES3DV3 - SN:3327

Calibration procedure(s) QA CAL-01.v10, QA CAL-12.v10, QA CAL-23.v6, QA CAL-25.v8
Calibration procedure for dosimetric E-field probes

Calibration date January 22, 2024

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
OCP DAK-3.5 (weighted)	SN: 1249	05-Oct-23 (OCP-DAK3.5-1249_Oct23)	Oct-24
OCP DAK-12	SN: 1016	05-Oct-23 (OCP-DAK12-1016_Oct23)	Oct-24
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
DAE4	SN: 660	16-Mar-23 (No. DAE4-660_Mar23)	Mar-24
Reference Probe EX3DV4	SN: 7349	03-Nov-23 (No. EX3-7349_Nov23)	Nov-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Joanna Lleshaj	Laboratory Technician	
Approved by	Sven Kühn	Technical Manager	
This calibration certificate shall not be reproduced except in full without written approval of the laboratory.			
Issued: January 22, 2024			