

**Maximum Permissible Exposure Report****1. Product Information**

FCC ID	: 2A9TT-CPAPOLLO7PRO
EUT	: APOLLO
Test Model	: APOLLO 7PRO
Power Supply	: Input: DC 9V-36V
Hardware Version	: /
Software Version	: /
Bluetooth	
Frequency Range	: 2402MHz~2480MHz
Channel Number	: 79 channels for Bluetooth V4.2(DSS) 40 channels for Bluetooth V4.2(DTS)
Channel Spacing	: 1MHz for Bluetooth V4.2(DSS) 2MHz for Bluetooth V4.2(DTS)
Modulation Type	: GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V4.2(DSS) GFSK for Bluetooth V4.2(DTS)
Bluetooth Version	: V4.2
Antenna Description	: PIFA Antenna, 3.91dBi(Max.)
WIFI(2.4G Band)	
Frequency Range	: 2412MHz~2462MHz
Channel Spacing	: 5MHz
Channel Number	: 11 Channels for 20MHz bandwidth (2412~2462MHz) 7 Channels for 40MHz bandwidth (2422~2452MHz)
Modulation Type	: IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PIFA Antenna, 3.91dBi(Max.)
WIFI(5.2G Band)	
Frequency Range	: 5180MHz~5240MHz
Channel Number	: 4 Channels for 20MHz bandwidth(5180MHz~5240MHz) 2 channels for 40MHz bandwidth(5190MHz~5230MHz) 1 channels for 80MHz bandwidth(5210MHz)
Modulation Type	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PIFA Antenna, 3.98dBi(Max.)
WIFI(5.3G Band)	
Frequency Range	: 5260MHz~5320MHz



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Channel Number	: 4 Channels for 20MHz bandwidth(5260MHz~5320MHz) 2 channels for 40MHz bandwidth(5270MHz~5310MHz) 1 channels for 80MHz bandwidth(5290MHz)
Modulation Type	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PIFA Antenna, 3.5dBi(Max.)
WIFI(5.5G Band)	
Frequency Range	: 5500MHz~5700MHz
Channel Number	: 11 Channels for 20MHz bandwidth(5500MHz~5700MHz) 5 Channels for 40MHz bandwidth(5510MHz~5670MHz) 2 Channels for 80MHz bandwidth(5530MHz, 5610MHz)
Modulation Type	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PIFA Antenna, 2.45dBi(Max.)
WIFI(5.8G Band)	
Frequency Range	: 5745MHz~5825MHz
Channel Number	: 5 channels for 20MHz bandwidth(5745MHz~5825MHz) 2 channels for 40MHz bandwidth(5755MHz~5795MHz) 1 channels for 80MHz bandwidth(5775MHz)
Modulation Type	: IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: PIFA Antenna, 3.8dBi(Max.)
3G	
Support Band	: ☒ WCDMA Band II (U.S.-Band) ☒ WCDMA Band V (U.S.-Band) ☒ WCDMA Band IV (U.S.-Band) ☐ WCDMA Band I (EU-Band) ☐ WCDMA Band VIII (EU-Band)
Release Version	: R9
Type Of Modulation	: QPSK,16QAM
Antenna Description	: External Antenna 1.0dBi (max.) For WCDMA Band II 1.0dBi (max.) For WCDMA Band IV 1.0dBi (max.) For WCDMA Band V
LTE	
Support Band	: ☒ E-UTRA Band 2(U.S.-Band) ☒ E-UTRA Band 4(U.S.-Band) ☒ E-UTRA Band 5(U.S.-Band)



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	☒ E-UTRA Band 7(U.S.-Band) ☒ E-UTRA Band 12(U.S.-Band) ☒ E-UTRA Band 13(U.S.-Band) ☒ E-UTRA Band 17(U.S.-Band) ☒ E-UTRA Band 25(U.S.-Band) ☒ E-UTRA Band 26(U.S.-Band) ☒ E-UTRA Band 38(U.S.-Band) ☒ E-UTRA Band 41(U.S.-Band) ☒ E-UTRA Band 66(U.S.-Band) ☒ E-UTRA Band 71(U.S.-Band)
LTE Release Version	: R8
Type Of Modulation	: QPSK/16QAM
Antenna Description	: External Antenna 1.0dBi (max.) For E-UTRA Band 2 1.0dBi (max.) For E-UTRA Band 4 1.0dBi (max.) For E-UTRA Band 5 1.0dBi (max.) For E-UTRA Band 7 1.0dBi (max.) For E-UTRA Band 12 1.0dBi (max.) For E-UTRA Band 13 1.0dBi (max.) For E-UTRA Band 17 1.0dBi (max.) For E-UTRA Band 25 1.0dBi (max.) For E-UTRA Band 26 1.0dBi (max.) For E-UTRA Band 38 1.0dBi (max.) For E-UTRA Band 41 1.0dBi (max.) For E-UTRA Band 66 1.0dBi (max.) For E-UTRA Band 71
Power Class	: Class 3
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit
Device Type	: Mobile Devices





2. Evaluation Method

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modelled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

3. Limit

3. 1 Refer Evaluation Method

[ANSI C95.1-2019](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz

[FCC KDB publication 447498 D01 General 1 RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

[FCC CFR 47 part1 1.1310](#): Radiofrequency radiation exposure limits.

[FCC CFR 47 part2 2.1091](#): Radiofrequency radiation exposure evaluation: mobile devices.



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3.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/f	4.89/f	(900/f ²)*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Uncontrolled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	(180/f ²)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	/	/	f/1500	30
1500 – 100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

4. MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=PG/4\pi R^2$$

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

5. Antenna Information

EUT can only use antennas certificated as follows provided by manufacturer;

Internal/External Identification	Antenna type and antenna number	Operate frequency band	Maximum antenna gain	Notes
External	External Antenna	824-849MHz 1850-1910MHz 1710-1755MHz 1850-1910MHz 1710-1755MHz 824-849MHz 2500-2570MHz	1.0dBi	3G/LTE Antenna



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		699-716MHz 777-787MHz 704-716MHz 1850-1915MHz 814-824MHz 824-849MHz 2570-2620MHz 2496-2690MHz 1710-1780MHz 663-698MHz		
Internal	PIFA Antenna	2400-2500MHz	3.91 dBi	BT/BLE/2.4GWIFI
Internal	PIFA Antenna	5150-5250MHz 5250-5350MHz 5470-5725MHz 5725-5850MHz	3.98dBi 3.5dBi 2.45dBi 3.8dBi	5GWIFI



**6. Conducted Power**

[BT]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
GFSK	00	2402	-0.21	0±1.0
	39	2441	-0.38	0±1.0
	79	2480	-0.7	0±1.0
$\pi/4$ -DQPSK	00	2402	-0.23	0±1.0
	39	2441	-0.39	0±1.0
	79	2480	-0.68	0±1.0
8-DPSK	00	2402	-0.07	0±1.0
	39	2441	-0.16	0±1.0
	79	2480	-0.47	0±1.0

[BLE]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
GFSK	0	2402	0.56	0±1.0
	19	2440	1.34	1.0±1.0
	39	2480	-1.07	-1.0±1.0

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
IEEE 802.11b	1	2412	15.16	15.0±1.0
	6	2437	14.95	14.0±1.0
	11	2462	15.64	15.0±1.0
IEEE 802.11g	1	2412	13.88	13.0±1.0
	6	2437	13.68	13.0±1.0
	11	2462	13.96	13.0±1.0
IEEE 802.11n HT20	1	2412	13.71	13.0±1.0
	6	2437	13.42	13.0±1.0
	11	2462	14.08	14.0±1.0
IEEE 802.11n HT40	3	2422	12.68	12.0±1.0
	6	2437	11.92	11.0±1.0
	9	2452	12.70	12.0±1.0





[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
IEEE 802.11a	36	5180	12.51	12.0±1.0
	40	5200	12.27	12.0±1.0
	48	5240	11.67	11.0±1.0
IEEE 802.11n HT20	36	5180	12.09	12.0±1.0
	40	5200	11.87	11.0±1.0
	48	5240	11.45	11.0±1.0
IEEE 802.11n HT40	38	5190	11.77	11.0±1.0
	46	5230	11.24	11.0±1.0
IEEE 802.11ac VHT20	36	5180	12.19	12.0±1.0
	40	5200	12.00	12.0±1.0
	48	5240	11.31	11.0±1.0
IEEE 802.11ac VHT40	38	5190	11.71	11.0±1.0
	46	5230	13.34	13.0±1.0
IEEE 802.11ac VHT80	42	5210	13.42	13.0±1.0

[5.3G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
IEEE 802.11a	52	5260	12.02	12.0±1.0
	60	5300	12.09	12.0±1.0
	64	5320	11.95	11.0±1.0
IEEE 802.11n HT20	52	5260	12.00	12.0±1.0
	60	5300	12.20	12.0±1.0
	64	5320	12.03	12.0±1.0
IEEE 802.11n HT40	54	5270	13.64	13.0±1.0
	62	5310	13.78	13.0±1.0
IEEE 802.11ac VHT20	52	5260	11.90	11.0±1.0
	60	5300	12.23	12.0±1.0
	64	5320	11.73	11.0±1.0
IEEE 802.11ac VHT40	54	5270	13.52	13.0±1.0
	62	5310	14.00	14.0±1.0
IEEE 802.11ac VHT80	58	5290	13.52	13.0±1.0

[5.5G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
IEEE 802.11a	100	5500	12.14	12.0±1.0
	116	5580	12.18	12.0±1.0
	140	5700	13.48	13.0±1.0
IEEE 802.11n HT20	100	5500	12.16	12.0±1.0
	116	5580	12.11	12.0±1.0
	140	5700	13.5	13.0±1.0
IEEE 802.11n HT40	102	5510	12.4	12.0±1.0
	110	5550	13.22	13.0±1.0
	134	5670	13.27	13.0±1.0
IEEE 802.11ac VHT20	100	5500	12.48	12.0±1.0
	116	5580	12.25	12.0±1.0
	140	5700	13.47	13.0±1.0
IEEE 802.11ac VHT40	102	5510	12.34	12.0±1.0
	110	5550	12.63	12.0±1.0
	134	5670	12.66	12.0±1.0
IEEE 802.11ac VHT80	106	5530	14.35	14.0±1.0
	122	5610	14.12	14.0±1.0



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[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)	ANT Max. Tune Up Power (dBm)
IEEE 802.11a	149	5745	12.97	12.0±1.0
	157	5785	11.89	11.0±1.0
	165	5825	11.99	11.0±1.0
IEEE 802.11n HT20	149	5745	13.1	13.0±1.0
	157	5785	11.89	11.0±1.0
	165	5825	11.96	11.0±1.0
IEEE 802.11n HT40	151	5755	12.79	12.0±1.0
	159	5795	13.05	13.0±1.0
IEEE 802.11ac VHT20	149	5745	12.99	12.0±1.0
	157	5785	11.72	11.0±1.0
	165	5825	11.97	11.0±1.0
IEEE 802.11ac VHT40	151	5755	12.69	12.0±1.0
	159	5795	13.14	13.0±1.0
IEEE 802.11ac VHT80	155	5775	14.9	14.0±1.0

[WCDMA Max Average Power]

Test Mode	Channel	Frequency (MHz)	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
WCDMA Band II	Low	1852.4	23.45	23.0±1.0
	Middle	1880	23.42	23.0±1.0
	High	1907.6	23.37	23.0±1.0
WCDMA Band IV	Low	826.4	23.12	23.0±1.0
	Middle	836.4	23.18	23.0±1.0
	High	846.6	23.27	23.0±1.0
WCDMA Band V	Low	1712.4	22.71	22.0±1.0
	Middle	1732.6	22.97	22.0±1.0
	High	1752.6	22.65	22.0±1.0





[LTE Max Average Power]

Test Mode		Channel	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
LTE	Band 2	LCH	21.86	21.0±1.0
		MCH	21.89	21.0±1.0
		HCH	22.08	22.0±1.0
	Band 4	LCH	22.16	22.0±1.0
		MCH	22.37	22.0±1.0
		HCH	22.41	22.0±1.0
	Band 5	LCH	22.38	22.0±1.0
		MCH	22.54	22.0±1.0
		HCH	22.51	22.0±1.0
	Band 7	LCH	21.57	21.0±1.0
		MCH	21.58	21.0±1.0
		HCH	21.51	21.0±1.0
	Band 12	LCH	22.55	22.0±1.0
		MCH	22.56	22.0±1.0
		HCH	22.68	22.0±1.0
	Band 13	LCH	22.17	22.0±1.0
		MCH	22.61	22.0±1.0
		HCH	22.80	22.0±1.0
	Band 17	LCH	22.66	22.0±1.0
		MCH	22.58	22.0±1.0
		HCH	22.76	22.0±1.0
	Band 25	LCH	21.79	21.0±1.0
		MCH	21.60	21.0±1.0
		HCH	21.91	21.0±1.0
	Band 26	LCH	22.52	22.0±1.0
		MCH	22.48	22.0±1.0
		HCH	22.72	22.0±1.0
	Band 38	LCH	21.69	21.0±1.0
		MCH	21.57	21.0±1.0
		HCH	21.31	21.0±1.0
	Band 41	LCH	21.38	21.0±1.0
		MCH	21.19	21.0±1.0
		HCH	21.59	21.0±1.0
	Band 66	LCH	21.91	21.0±1.0
		MCH	22.15	22.0±1.0
		HCH	21.45	21.0±1.0
	Band 71	LCH	23.81	23.0±1.0
		MCH	23.10	23.0±1.0
		HCH	23.55	23.0±1.0



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7. Measurement Results

7.1 Standalone MPE Evaluation

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r=20\text{cm}$, as well as the gain of the used antenna refer to antenna information, the RF power density can be obtained.

[BT]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
GFSK	1.0	1.2589	3.91	2.4604	0.0006	1.0000
$\pi/4$ -DQPSK	1.0	1.2589	3.91	2.4604	0.0006	1.0000
8-DPSK	1.0	1.2589	3.91	2.4604	0.0006	1.0000

[BT LE]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
BT LE	2.0	1.5849	3.91	2.4604	0.0008	1.0000

[2.4GWLAN]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11b	16.0	39.8107	3.91	2.4604	0.0195	1.0000
IEEE 802.11g	14.0	25.1189	3.91	2.4604	0.0123	1.0000
IEEE 802.11n HT20	15.0	31.6228	3.91	2.4604	0.0155	1.0000
IEEE 802.11n HT40	13.0	19.9526	3.91	2.4604	0.0098	1.0000

[5.2G WLAN]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.98	2.5003	0.0099	1.0000
IEEE 802.11n HT20	13.0	19.9526	3.98	2.5003	0.0099	1.0000
IEEE 802.11n HT40	12.0	15.8489	3.98	2.5003	0.0079	1.0000
IEEE 802.11ac VHT20	13.0	19.9526	3.98	2.5003	0.0099	1.0000
IEEE 802.11ac VHT40	14.0	25.1189	3.98	2.5003	0.0125	1.0000
IEEE 802.11ac VHT80	14.0	25.1189	3.98	2.5003	0.0125	1.0000





[5.3G WLAN]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.5	2.2387	0.0089	1.0000
IEEE 802.11n HT20	13.0	19.9526	3.5	2.2387	0.0089	1.0000
IEEE 802.11n HT40	14.0	25.1189	3.5	2.2387	0.0112	1.0000
IEEE 802.11ac VHT20	13.0	19.9526	3.5	2.2387	0.0089	1.0000
IEEE 802.11ac VHT40	15.0	31.6228	3.5	2.2387	0.0141	1.0000
IEEE 802.11ac VHT80	14.0	25.1189	3.5	2.2387	0.0112	1.0000

[5.5G WLAN]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	14.0	25.1189	2.45	1.7579	0.0088	1.0000
IEEE 802.11n HT20	14.0	25.1189	2.45	1.7579	0.0088	1.0000
IEEE 802.11n HT40	14.0	25.1189	2.45	1.7579	0.0088	1.0000
IEEE 802.11ac VHT20	14.0	25.1189	2.45	1.7579	0.0088	1.0000
IEEE 802.11ac VHT40	13.0	19.9526	2.45	1.7579	0.0070	1.0000
IEEE 802.11ac VHT80	15.0	31.6228	2.45	1.7579	0.0111	1.0000

[5.8G WLAN]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
IEEE 802.11a	13.0	19.9526	3.8	2.3988	0.0095	1.0000
IEEE 802.11n HT20	14.0	25.1189	3.8	2.3988	0.0120	1.0000
IEEE 802.11n HT40	14.0	25.1189	3.8	2.3988	0.0120	1.0000
IEEE 802.11ac VHT20	13.0	19.9526	3.8	2.3988	0.0095	1.0000
IEEE 802.11ac VHT40	14.0	25.1189	3.8	2.3988	0.0120	1.0000
IEEE 802.11ac VHT80	15.0	31.6228	3.8	2.3988	0.0151	1.0000





Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
WCDMA Band II	24.00	251.1886	1.0	1.2589	0.0629	0.5493
WCDMA Band IV	24.00	251.1886	1.0	1.2589	0.0629	1.0000
WCDMA Band V	23.00	199.5262	1.0	1.2589	0.0500	0.4660
LTE Band 2	23.00	199.5262	1.0	1.2589	0.0500	1.0000
LTE Band 4	23.00	199.5262	1.0	1.2589	0.0500	1.0000
LTE Band 5	23.00	199.5262	1.0	1.2589	0.0500	0.5667
LTE Band 7	22.00	158.4893	1.0	1.2589	0.0397	1.0000
LTE Band 12	23.00	199.5262	1.0	1.2589	0.0500	0.4660
LTE Band 13	23.00	199.5262	1.0	1.2589	0.0500	0.5180
LTE Band 17	23.00	199.5262	1.0	1.2589	0.0500	0.4893
LTE Band 25	22.00	158.4893	1.0	1.2589	0.0397	1.0000
LTE Band 26	23.00	199.5262	1.0	1.2589	0.0500	0.5427
LTE Band 38	22.00	158.4893	1.0	1.2589	0.0397	1.0000
LTE Band 41	22.00	158.4893	1.0	1.2589	0.0397	1.0000
LTE Band 66	23.00	199.5262	1.0	1.2589	0.0500	1.0000
LTE Band 71	24.00	251.1886	1.0	1.2589	0.0629	0.4113

Remark:

1. Output power including turn-up tolerance;
2. Output power was adjust to duty cycle at 100% if measured duty cycle less than 98%;
3. MPE evaluate distance is 20cm from user manual provide by manufacturer.

8.2 Simultaneous Transmission MPE Evaluation

The sample support one BT&BLE&2.4GWLAN&5GWIFI, another one LTE&WCDMA transmit antenna, so need consider simultaneous transmission;

PMR cannot work with LTE&WCDMA&GSM at the same time

Simultaneous transmission MPE

According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations;

$\sum \sum \text{of MPE ratios} \leq 1.0$

Mode	MPE1 Max.	MPE2 Max.	$\sum$ MPE ratios	Limit	Results
BT+WCDMA	0.0006	0.0629	0.0635	1.000	Pass
BT LE+WCDMA	0.0008	0.0629	0.0637	1.000	Pass
2.4GWIFI+WCDMA	0.0195	0.0629	0.0824	1.000	Pass
5.2GWIFI+WCDMA	0.0125	0.0629	0.0754	1.000	Pass
5.3GWIFI+WCDMA	0.0141	0.0629	0.077	1.000	Pass
5.5GWIFI+WCDMA	0.0111	0.0629	0.074	1.000	Pass
5.8GWIFI+WCDMA	0.0151	0.0629	0.078	1.000	Pass
BT+LTE	0.0006	0.0629	0.0635	1.000	Pass
BT LE+LTE	0.0008	0.0629	0.0637	1.000	Pass
2.4GWIFI+LTE	0.0195	0.0629	0.0824	1.000	Pass



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Scan code to check authenticity



5.2GWIFI+ LTE	0.0125	0.0629	0.0754	1.000	Pass
5.3GWIFI+LTE	0.0141	0.0629	0.077	1.000	Pass
5.5GWIFI+LTE	0.0111	0.0629	0.074	1.000	Pass
5.8GWIFI+LTE	0.0151	0.0629	0.078	1.000	Pass

9. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

-----THE END OF REPORT-----



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