

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

Applicant	: Datecs Ltd.
Address	: 115A Tzarigradsko Shosse, Fl.4 SOFIA 1784 Bulgaria
EUT	: DAKT-50
Test Model	: DAKT-50
Ratings	: Input:Power Connector from 12V to 48V DC MDB Connector from 12V to 48V DC or AC For AC Adapter: Input:100-240V~, 50-60Hz, 0.7A Output: 12.0V=2.0A DC 3.7V by Rechargeable Li-ion Battery, 220mAh
Hardware Version	: 91D1xxxxxxxx
Software Version	: 3.0.xx.xx
WIFI(2.4G Band)	:
Frequency Range	: 2412MHz~2462MHz
Channel Number	: 5MHz
Channel Spacing	: 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	: Internal Antenna, 1.86dBi(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/n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Internal Antenna, 1.35dBi(Max.)
WIFI(5.3G Band)	:
Frequency Range	: 5260MHz~5320MHz
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/n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Internal Antenna, 1.35dBi(Max.)
WIFI(5.5G Band)	:
Frequency Range	: 5500MHz~5700MHz
Channel Number	: 11 Channels for 20MHz bandwidth(5500MHz~5700MHz)



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



	5 Channels for 40MHz bandwidth(5510MHz~5670MHz) 2 Channels for 80MHz bandwidth(5530MHz, 5610MHz)
Modulation Type	: IEEE 802.11a/n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Internal Antenna, 1.35dBi(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/n: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Description	: Internal Antenna, 1.35dBi(Max.)
2G	:
Support Band	: ☒ GSM 850 (U.S.-Band) ☒ PCS 1900 (U.S.-Band) ☒ GSM 900 (EU-Band) ☒ DCS 1800 (EU-Band)
Release Version	: R99
GPRS Class	: Class 12
EGPRS Class	: Class 12
Type Of Modulation	: GMSK for GSM/GPRS; GMSK/8PSK for EGPRS
Antenna Description	: External Antenna 1.64dBi (max.) For GSM 850 1.76dBi (max.) For PCS 1900
3G	:
Support Band	: ☒ WCDMA Band II (U.S.-Band) ☒ WCDMA Band IV (U.S.-Band) ☒ WCDMA Band V (U.S.-Band)
Release Version	: R7&R8
Type Of Modulation	: QPSK,16QAM
Antenna Description	: External Antenna 1.89dBi (max.) For WCDMA Band II 1.44dBi (max.) For WCDMA Band IV 1.89dBi (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) ☒ 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)





LTE Release Version	: R11
Type Of Modulation	: QPSK/16QAM
Antenna Description	: External Antenna 1.99dBi (max.) For E-UTRA Band 2 1.99dBi (max.) For E-UTRA Band 4 1.88dBi (max.) For E-UTRA Band 5 1.95dBi (max.) For E-UTRA Band 7 1.89dBi (max.) For E-UTRA Band 12 1.89dBi (max.) For E-UTRA Band 13 1.89dBi (max.) For E-UTRA Band 17 1.99dBi (max.) For E-UTRA Band 25 1.89dBi (max.) For E-UTRA Band 26 1.95dBi (max.) For E-UTRA Band 38 1.95dBi (max.) For E-UTRA Band 41 1.99dBi (max.) For E-UTRA Band 66
Power Class	: Class 3
NFC	:
Operating Frequency	: 13.56MHz
Modulation Type	: ASK
Antenna Description	: Internal Antenna, 0dBi(Max.)
GPS function	: Support and only RX
Exposure category	: General population/uncontrolled environment
EUT Type	: Production Unit
Device Type	: Mobile Device
Date of Test	: February 12, 2025 ~ March 12, 2025
Date of Report	: March 13, 2025





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.

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



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



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. Conducted Power

[2.4G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11B	1	2412	15.32
	6	2437	15.15
	11	2462	14.92
11G	1	2412	14.71
	6	2437	15.51
	11	2462	14.39
11N20 SISO	1	2412	12.99
	6	2437	13.95
	11	2462	13.86
11N40 SISO	3	2422	12.53
	6	2437	12.7
	9	2452	12.48

[5.2G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	36	5180	13.04
	40	5200	12.76
	48	5240	12.05
11N20 SISO	36	5180	11.58
	40	5200	11.33
	48	5240	11.56
11N40 SISO	38	5190	11.44
	46	5230	10.58
11AC20 SISO	36	5180	11.74
	40	5200	11.41
	48	5240	11.73
11AC40 SISO	38	5190	11.47
	46	5230	10.57
11AC80 SISO	42	5210	10.71





[5.3G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
IEEE 802.11a	52	5260	12.7
	60	5280	13.19
	64	5320	13.01
IEEE 802.11n HT20	52	5260	11.23
	60	5280	11.38
	64	5320	11.36
IEEE 802.11n HT40	54	5270	10.89
	62	5310	11.03
IEEE 802.11ac VHT20	52	5260	11.42
	60	5280	12.01
	64	5320	11.67
IEEE 802.11ac VHT40	54	5270	10.73
	62	5310	11.15
IEEE 802.11ac VHT80	58	5290	11.45

[5.5G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	100	5500	12.99
	116	5580	13.38
	140	5700	13.22
11N20 SISO	100	5500	11.31
	116	5580	11.64
	140	5700	11.2
11N40 SISO	102	5510	10.96
	110	5550	12.09
	134	5670	10.97
11AC20 SISO	100	5500	11.36
	116	5580	11.67
	140	5700	11.21
11AC40 SISO	102	5510	10.82
	110	5550	10.75
	134	5670	10.98
11AC80 SISO	106	5530	10.81
	122	5610	11.15



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



[5.8G WIFI]

Mode	Channel	Frequency (MHz)	Max Conducted Power(dBm)
11A	149	5745	12.89
	157	5785	12.13
	165	5825	12.33
11N20 SISO	149	5745	12.14
	157	5785	11.57
	165	5825	11.72
11N40 SISO	151	5755	11.89
	159	5795	11.01
11AC20 SISO	149	5745	11.23
	157	5785	11.54
	165	5825	11.7
11AC40 SISO	151	5755	11.83
	159	5795	10.96
11AC80 SISO	155	5775	10.14

Test Procedure

TX frequency range: 13.56MHz, Limit: $824/13.56=60.77\text{V/m}$

Device category: Mobile device (Distance: 20cm)

Max. Field Strength: 25.84dBuV/m @3m

@20cm=@3m+40*log(3/0.2)= 72.88dBuV/m

For 13.56MHz: $72.88\text{dBuV/m}=10^{(72.88/20)}/10^6=0.004\text{V/m}< 60.77\text{V/m}$

6. Manufacturing Tolerance

[2.4G WIFI]

11B (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	15.0	15.0	14.0
Tolerance ±(dB)	1.0	1.0	1.0
11G (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	14.0	15.0	14.0
Tolerance ±(dB)	1.0	1.0	1.0
11N20 (Peak)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	12.0	13.0	13.0
Tolerance ±(dB)	1.0	1.0	1.0
11N40 (Peak)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	12.0	12.0	12.0
Tolerance ±(dB)	1.0	1.0	1.0



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



[5.2G WIFI]

11A (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	13.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	11.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC20 (Average)			
Channel	Channel 36	Channel 40	Channel 48
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC40 (Average)			
Channel	Channel 38	Channel 46	
Target (dBm)	11.0	10.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC80 (Average)			
Channel	Channel 42		
Target (dBm)	10.0		
Tolerance $\pm$ (dB)	1.0		

[5.3G WIFI]

11A (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	12.0	13.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 54	Channel 62	
Target (dBm)	10.0	11.0	
Tolerance $\pm$ (dB)	1.0	1.0	
11AC VHT20 (Average)			
Channel	Channel 52	Channel 60	Channel 64
Target (dBm)	11.0	12.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT40 (Average)			



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Channel	Channel 54	Channel 62
Target (dBm)	10.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0
11AC VHT80 (Average)		
Channel	Channel 58	
Target (dBm)	11.0	
Tolerance $\pm$ (dB)	1.0	

[5.5G WIFI]

11A (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	12.0	13.0	13.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	10.0	12.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT20 (Average)			
Channel	Channel 100	Channel 116	Channel 140
Target (dBm)	11.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC HT40 (Average)			
Channel	Channel 102	Channel 110	Channel 134
Target (dBm)	10.0	10.0	10.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11AC VHT80 (Average)			
Channel	Channel 106	Channel 122	
Target (dBm)	10.0	11.0	
Tolerance $\pm$ (dB)	1.0	1.0	

[5.8G WIFI]

11A (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	12.0	12.0	12.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N20 (Average)			
Channel	Channel 149	Channel 157	Channel 165
Target (dBm)	12.0	11.0	11.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
11N40 (Average)			



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



Channel	Channel 151		Channel 159	
Target (dBm)	11.0		11.0	
Tolerance ±(dB)	1.0		1.0	
11AC20 (Average)				
Channel	Channel 149		Channel 165	
Target (dBm)	11.0		11.0	
Tolerance ±(dB)	1.0		1.0	
11AC40 (Average)				
Channel	Channe151		Channel 159	
Target (dBm)	11.0		10.0	
Tolerance ±(dB)	1.0		1.0	
11AC80 (Average)				
Channel	Channel 155			
Target (dBm)	10.0			
Tolerance ±(dB)	1.0			

[GSM Max Average Power]

Test Mode	Channel	Frequency (MHz)	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
GSM 850	LCH	824.2	32.42	32.0 $\pm$ 1.0
	MCH	836.6	32.42	32.0 $\pm$ 1.0
	HCH	848.8	32.40	32.0 $\pm$ 1.0
PCS 1900	LCH	1850.2	29.46	29.0 $\pm$ 1.0
	MCH	1880.0	29.47	29.0 $\pm$ 1.0
	HCH	1909.8	29.43	29.0 $\pm$ 1.0

[WCDMA Max Average Power]

Test Mode	Channel	Frequency (MHz)	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
Band II	LCH	1852.4	23.37	23.0 $\pm$ 1.0
	MCH	1880	23.28	23.0 $\pm$ 1.0
	HCH	1907.6	23.37	23.0 $\pm$ 1.0
Band IV	LCH	1712.4	23.17	23.0 $\pm$ 1.0
	MCH	1732.6	23.16	23.0 $\pm$ 1.0
	HCH	1752.6	23.37	23.0 $\pm$ 1.0
Band V	LCH	826.4	22.71	22.0 $\pm$ 1.0
	MCH	836.4	22.84	22.0 $\pm$ 1.0
	HCH	846.6	22.73	22.0 $\pm$ 1.0



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



[LTE Max Average Power]

Test Mode		Channel	Max Average Power (dBm)	ANT Max. Tune Up Power (dBm)
LTE	Band 2	LCH	24.63	24.0±1.0
		MCH	24.66	24.0±1.0
		HCH	24.71	24.0±1.0
	Band 4	LCH	24.32	24.0±1.0
		MCH	24.4	24.0±1.0
		HCH	24.41	24.0±1.0
	Band 5	LCH	24.32	24.0±1.0
		MCH	24.4	24.0±1.0
		HCH	24.22	24.0±1.0
	Band 7	LCH	24.65	24.0±1.0
		MCH	24.76	24.0±1.0
		HCH	24.75	24.0±1.0
	Band 12	LCH	24.62	24.0±1.0
		MCH	24.68	24.0±1.0
		HCH	24.6	24.0±1.0
	Band 13	LCH	24.33	24.0±1.0
		MCH	24.23	24.0±1.0
		HCH	24.27	24.0±1.0
	Band 17	LCH	24.91	24.0±1.0
		MCH	24.76	24.0±1.0
		HCH	24.51	24.0±1.0
	Band 25	LCH	24.53	24.0±1.0
		MCH	24.68	24.0±1.0
		HCH	24.83	24.0±1.0
	Band 26-1	LCH	24.71	24.0±1.0
		MCH	24.58	24.0±1.0
		HCH	24.49	24.0±1.0
	Band 26-2	LCH	24.58	24.0±1.0
		MCH	24.71	24.0±1.0
		HCH	24.6	24.0±1.0
	Band 38	LCH	22.65	22.0±1.0
		MCH	22.16	22.0±1.0
		HCH	22.19	22.0±1.0
	Band 41	LCH	24.66	24.0±1.0
		MCH	24.41	24.0±1.0
		HCH	24.27	24.0±1.0
	Band 66	LCH	24.48	24.0±1.0
		MCH	24.5	24.0±1.0
		HCH	24.52	24.0±1.0



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



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.

[2.4G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios1
	dBm	mW					
IEEE 802.11b	16.0	39.8107	1.86	1.5524	0.0123	1.0000	0.0123
IEEE 802.11g	16.0	39.8107	1.86	1.5524	0.0123	1.0000	0.0123
IEEE 802.11n HT20	14.0	25.1189	1.86	1.5524	0.0078	1.0000	0.0078
IEEE 802.11n HT40	13.0	19.9526	1.86	1.5524	0.0062	1.0000	0.0062

[5.2G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios1
	dBm	mW					
IEEE 802.11a	14.0	25.1189	1.35	1.3646	0.0068	1.0000	0.0068
IEEE 802.11n HT20	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11n HT40	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT20	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT40	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT80	11.0	12.5893	1.35	1.3646	0.0034	1.0000	0.0034

[5.3G WIFI]

Band/Mode	RF output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios1
	dBm	mW					
IEEE 802.11a	14.0	25.1189	1.35	1.3646	0.0068	1.0000	0.0068
IEEE 802.11n HT20	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11n HT40	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT20	13.0	19.9526	1.35	1.3646	0.0054	1.0000	0.0054
IEEE 802.11ac VHT40	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT80	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043

[5.5G WIFI]

Band/Mode	RF output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios1
	dBm	mW					
IEEE 802.11a	14.0	25.1189	1.35	1.3646	0.0068	1.0000	0.0068
IEEE 802.11n HT20	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11n HT40	13.0	19.9526	1.35	1.3646	0.0054	1.0000	0.0054
IEEE 802.11ac VHT20	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT40	11.0	12.5893	1.35	1.3646	0.0034	1.0000	0.0034
IEEE 802.11ac VHT80	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



[5.8G WIFI]

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios1
	dBm	mW					
IEEE 802.11a	13.0	19.9526	1.35	1.3646	0.0054	1.0000	0.0054
IEEE 802.11n HT20	13.0	19.9526	1.35	1.3646	0.0054	1.0000	0.0054
IEEE 802.11n HT40	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT20	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT40	12.0	15.8489	1.35	1.3646	0.0043	1.0000	0.0043
IEEE 802.11ac VHT80	11.0	12.5893	1.35	1.3646	0.0034	1.0000	0.0034

Modulation Type	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	MPE ratios2
	dBm	mW					
GSM 850	23.97	249.4595	1.64	1.4588	0.0724	0.5493	0.1318
PCS 1900	20.97	125.0259	1.76	1.4997	0.0373	1.0000	0.0384
Band II	24	251.1886	1.89	1.5453	0.0773	1.0000	0.0773
Band IV	24	251.1886	1.44	1.3932	0.0696	1.0000	0.0696
Band V	23	199.5262	1.89	1.5382	0.0613	0.5493	0.1116
LTE Band 2	25	316.2278	1.99	1.5812	0.0995	1.0000	0.0995
LTE Band 4	25	316.2278	1.99	1.5812	0.0995	1.0000	0.0995
LTE Band 5	25	316.2278	1.88	1.5417	0.0970	0.5493	0.1766
LTE Band 7	25	316.2278	1.95	1.5668	0.0986	1.0000	0.0986
LTE Band 12	25	316.2278	1.89	1.5453	0.0972	0.4660	0.2086
LTE Band 13	25	316.2278	1.89	1.5453	0.0972	0.5180	0.1876
LTE Band 17	25	316.2278	1.89	1.5453	0.0972	0.4693	0.2071
LTE Band 25	25	316.2278	1.99	1.5812	0.0995	1.0000	0.0995
LTE Band 26	25	316.2278	1.89	1.5453	0.0972	0.5427	0.1784
LTE Band 38	23	199.5262	1.95	1.5668	0.0622	1.0000	0.0622
LTE Band 41	25	316.2278	1.95	1.5668	0.0986	1.0000	0.0986
LTE Band 66	25	316.2278	1.99	1.5812	0.0995	1.0000	0.0995



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity

**Remark:**

1. Output power including tune-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.
4. For GSM, Duty cycle=1/8.



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity



7.2 Simultaneous Transmission MPE Evaluation

The sample support one 2.4G WLAN&5.2G WLAN&5.3G WLAN &5.5G WLAN &5.8G WLAN antenna, another one NFC antenna and another one GSM&WCDMA<E transmit antenna, so need consider simultaneous transmission;

Simultaneous transmission MPE

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

$$TER = \sum_{k=1}^{N_s} \left(\frac{SAR_k}{SAR_{lim}} \right) + \sum_{k=1}^{N_f} \left(\frac{MPE_{field,k}}{MPE_{field,lim}} \right)^2 + \sum_{k=1}^{N_{PD}} \left(\frac{MPE_{PD,k}}{MPE_{PD,lim}} \right)$$

$\sum$ of MPE ratios ≤ 1.0

MPE ratios1	MPE ratios2	$\sum$ MPE ratios	Limit	Results
0.0123	0.2086	0.2209	1.000	Pass

8. Conclusion

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

9. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

Test Firm Registration Number: 254912.

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



Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

Scan code to check authenticity