



RF EXPOSURE Test Report

Report No.: MTi240416006-01E2

Date of issue: 2024-05-15

Applicant: Vegepod LLC.

Product: WIFI EDK LED

Model(s): EDK-SM-36W , EDK-SM-18W

FCC ID: 2BGLP-EDK-SM-18W

Shenzhen Microtest Co., Ltd.

<http://www.mtitest.cn>

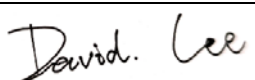
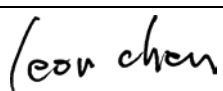


Instructions

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2. The test results of this report are only responsible for the samples submitted;
3. This report is invalid without the seal and signature of the laboratory;
4. This report is invalid if transferred, altered or tampered with in any form without authorization;
5. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.



Test Result Certification	
Applicant:	Vegepod LLC.
Address:	PO Box 2454, Misison Viejo, CA, 92690
Manufacturer:	Shenzhen Sunlight Lighting Co., Ltd.
Address:	Area B, 7 / F, Building 22, Shapuwei Community Entrepreneurial Industrial Zone, Songgang Street, Shenzhen,China
Product description	
Product name:	WIFI EDK LED
Trademark:	N/A
Model name:	EDK-SM-36W
Serial Model:	EDK-SM-18W
Standards:	N/A
Test procedure:	KDB 447498 D01 v06
Date of Test	
Date of test:	2024-04-20 to 2024-05-13
Test result:	Pass

Test Engineer	:	
		(Maleah Deng)
Reviewed By	:	
		(David Lee)
Approved By	:	
		(Leon Chen)



RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) 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
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

MPE Calculation Method

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

P_d = Power density in mW/cm²

P_{out} = output power to antenna in mW

G = Numeric gain of the antenna relative to isotropic antenna

π = 3.1415926

R = distance between observation point and center of the radiator in cm(20cm)

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

2.4GWiFi:

Operation Frequency: WIFI 802.11b/g/n HT20: 2412-2462MHz, n HT40: 2422-2452

Power density limited: 1mW/ cm²

Antenna Type: PCB Antenna;

Antenna gain:

2.4G: 1.82 dBi

R=20cm

$mW=10^{(dBm/10)}$

2.4G: antenna gain Numeric= $10^{(dBi/10)}=10^{(1.82/10)}=1.52$

2.4GWiFi:

Channel Freq. (MHz)	modulation	conducted power	Tune-up power	Max		Antenna	Evaluation result at 20cm	Power density Limits
		(dBm)	(dBm)	tune-up power		Gain Numeric	Power density(mW/cm ²)	(mW/cm ²)
				(dBm)	(mW)			
2412	802.11b	13.62	13±1	14	25.119	1.52	0.00760	1
2437		14.01	14±1	15	31.623	1.52	0.00957	1
2462		13.30	13±1	14	25.119	1.52	0.00760	1
2412	802.11g	12.50	12±1	13	19.953	1.52	0.00604	1
2437		12.17	12±1	13	19.953	1.52	0.00604	1
2462		12.08	12±1	13	19.953	1.52	0.00604	1
2412	802.11n H20	11.87	12±1	13	19.953	1.52	0.00604	1
2437		12.00	12±1	13	19.953	1.52	0.00604	1
2462		11.65	12±1	13	19.953	1.52	0.00604	1
2422	802.11n H40	13.16	13±1	14	25.119	1.52	0.00760	1
2437		12.54	12±1	13	19.953	1.52	0.00604	1
2452		11.74	12±1	13	19.953	1.52	0.00604	1

Conclusion:

For the max result: $0.00957 \leq 1.0$ test exclusion threshold, No SAR is required.

----END OF REPORT----