



BSL Testing Co.,Ltd.

RF EXPOSURE Test Report

FCC ID:	2BEZXMOKU-1
Applicant	Shenzhen Meiyaxuan Technology Co., Ltd
Address	2/F, Building B, Factory Building, Area C, Shangxue Science and Technology Industrial City, Xinxue Community, Bantian Street, Longgang District, Shenzhen
Manufacturer	Shenzhen Meiyaxuan Technology Co., Ltd
Address	2/F, Building B, Factory Building, Area C, Shangxue Science and Technology Industrial City, Xinxue Community, Bantian Street, Longgang District, Shenzhen
Product Name:	USB Repeater
Model/Type reference:	MOKU-1, MOKU-2, MOKU-3, MOKU-4, MOKU-5, MOKU-6, MOKU-7, MOKU-8, MOKU-9, MOKU-10, MOKU-11, MOKU-12, MOKU-13, MOKU-14, MOKU-15, MOKU-16, MOKU-17, MOKU-18, MOKU-19, MOKU-20, MOKU-21, MOKU-22, MOKU-23, MOKU-24, MOKU-25, MOKU-26, MOKU-27, MOKU-28, MOKU-29, MOKU-30
Power supply:	DC 5V
Adapter information	N/A
Hardware version:	V2.2
Software version:	1.99.04413120
Standards:	N/A
Test procedure :	KDB 447498 D01 v06
Date of Test	
Date of tests	September 20, 2024 ~ October 10, 2024
Test Result.	Pass
This device described above has been tested by BSL Testing Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.	

RF Exposure Evaluation

Limits

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)

According to KDB 447498 D01 General RF Exposure Guidance v06, Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied.

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 Exposures				
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
(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
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz

Friis transmission formula: $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

Pd = power density in mW/cm², **Pout** = output power to antenna in mW;

G = gain of antenna in linear scale, **Pi** = 3.1416;

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

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

Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.



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Test Result of RF Exposure Evaluation

2.4GWiFi:

Operation Frequency: WIFI 802.11b/g/n HT20: 2412-2462MHz, 802.11n(H40): 2422MHz~2452MHz

Power density limited: 1mW/ cm²

Antenna Type: External Antenna

Antenna gain: ANT 1/ ANT 2: 2dBi

R=20cm

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

WiFi 2.4G mode: ANT1+ANT2 MIMO

Channel	Frequency (MHz)	Output power to antenna (dbm)			Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
		ANT 1	ANT 2	ANT 1+2			
802.11b	2412	14.561	12.652	/	0.0058	1.0	PASS
	2437	14.232	12.141	/	0.0052	1.0	PASS
	2462	14.021	11.652	/	0.0046	1.0	PASS
802.11g	2412	12.652	10.254	/	0.0033	1.0	PASS
	2437	12.245	10.121	/	0.0032	1.0	PASS
	2462	12.102	9.898	/	0.0031	1.0	PASS
802.11n (HT20)	2412	10.653	9.101	12.956	0.0062	1.0	PASS
	2437	10.425	8.982	12.773	0.0060	1.0	PASS
	2462	10.325	8.756	12.621	0.0058	1.0	PASS
802.11n (HT40)	2422	9.245	8.124	11.731	0.0047	1.0	PASS
	2437	9.124	7.895	11.563	0.0045	1.0	PASS
	2452	9.896	7.652	11.928	0.0049	1.0	PASS

Remark: The best case gain of the antenna is 2dBi.

2dBi logarithmic terms convert to numeric result is nearly 1.58

Conclusion: No SAR is required.

----END OF REPORT----