RF Exposure Report

Product Name : Peplink Pepwave Wireless Product

Model No. : AP Pro AX, APP-AX-IP67

FCC ID : U8G-P1PROAX

Applicant : PISMO LABS TECHNOLOGY LIMITED

Address : A8, 5/F, HK Spinners Industrial Building, Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Hong Kong

Date of Receipt : Nov. 29, 2022

Date of Declaration : Mar. 09, 2023

Report No. : 22B1024R-RFUSV17S-A

Report Version : V2.0

Testing Laboratory
3023

Product Name	Peplink Pepwave Wireless Product	
Applicant	PISMO LABS TECHNOLOGY LIMITED	
Address	A8, 5/F, HK Spinners Industrial Building, Phase 6, 481 Castle Peak Road, Cheung Sha Wan, Hong Kong	
Manufacturer	PISMO LABS TECHNOLOGY LIMITED	
Model No.	AP Pro AX, APP-AX-IP67	
FCC ID	U8G-P1PROAX	
Trade Name	peplink PEPWAVE	
Applicable Standard	KDB 447498 D01 v06	☒ Minimum test separation distance ≥ 20 cm ☐ For low power devices
Test Result	Complied	

Documented By : Jinn Chen

(Supervisor / Jinn Chen)

Tested By : Alan Chen

(Senior Engineer / Alan Chen)

Approved By : Tim Sung

(Manager / Tim Sung)

Revision History

Report No.	Version	Description	Issued Date
22B1024R-RFUSV17S-A	V1.0	Initial issue of report.	Jan. 12, 2023
22B1024R-RFUSV17S-A	V2.0	Update FCC ID.	Mar. 09, 2023

1. General Information

1.1. EUT Description

Product Name	Peplink Pepwave Wireless Product
Model No.	AP Pro AX, APP-AX-IP67
Trade Name	peplink PEPWAVE
FCC ID	U8G-P1PROAX

Note: For more detailed information please refer to report No.: 22B1024R-RFUSV01S-A and 22B1024R-RFUSV03S-A.

1.2. Test Facility

USA	:	FCC Registration Number: TW0033
Canada	:	CAB Identifier Number: TW3023 / Company Number: 26930

Site Description	:	Accredited by TAF Accredited Number: 3023
Test Laboratory	:	DEKRA Testing and Certification Co., Ltd
Address	:	No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan
Performed Location	:	No. 26, Huaya 1st Rd., Guishan Dist.,Taoyuan City 333411, Taiwan, R.O.C.
Phone Number	:	+886-3-275-7255
Fax Number	:	+886-3-327-8031
Email Address	:	info.tw@dekra.com
Website	:	http://www.dekra.com.tw

2. RF Exposure Evaluation

2.1. Standard Applicable

According to KDB 447498 D01 (7.1), A minimum test separation distance ≥ 20 cm is required between the antenna and radiating structures of the device and nearby persons to apply mobile device exposure limits.

2.2. Limits

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)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
3.0-30	1842/f	4.89/f	$900/f^2$	6
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
1.34-30	824/f	2.19/f	$180/f^2$	30
300-1500	--	--	F/1500	30
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

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

Where

Pd = power density in mW/cm^2

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

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0

2.3. Test Result of RF Exposure Evaluation

Product : Peplink Pepwave Wireless Product
Test Item : RF Exposure Evaluation

Band	Frequency (MHz)	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density at R = 20 cm (mW/cm2)	Limit (mW/cm2)
2.4 GHz	2437	27.31	538.27	0.107	1
5 GHz	5795	28.06	639.73	0.127	1

Note: The conducted output power is refer to report No.: 22B1024R-RFUSV01S-A and 22B1024R-RFUSV03S-A from the DEKRA.

2.4. Calculations for Multi-Transsmitter

Mode	Ratios	Result	Limit
2.4GHz	0.107	0.234	1
5GHz	0.127		

Ratios = Power Density / Power Density Limit

Results	PASS