

MAXIMUM PERMISSIBLE EXPOSURE

KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

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)

EUT Specification

FCC ID	2AUY5-F16		
EUT	Dogness Rover App Feeder		
Frequency band (Operating)	☐ BT: 2.402GHz ~ 2.480GHz		
	⊠ WLAN: 2.412GHz ~ 2.462GHz		
	☐ RLAN: 5.180GHz ~ 5.240GHz		
	☐ RLAN: 5.260GHz ~ 5.320GHz		
	☐ RLAN: 5.500GHz ~ 5.700GHz		
	⊠ RLAN: 5.745GHz ~ 5.825GHz		
	☐ Others:		
Device category	☐ Portable (<20cm separation)		
	⊠ Mobile (>20cm separation)		
	☐ Others		
Exposure classification	☐ Occupational/Controlled exposure		
	⊠ General Population/Uncontrolled exposure		
Antenna diversity	⊠ Single antenna		
	☐ Multiple antennas		
	☐ Tx diversity		
	☐ Rx diversity		
	☐ Tx/Rx diversity		
Antenna gain (Max)	WIFI 2.4G: 3.42dBi		
	WIFI 5.8G: 3.18dBi		
Evaluation applied	☑ MPE Evaluation		
	☐ SAR Evaluation		

Limits for Maximum Permissible Exposure(MPE)

Frequency	Electric Field	Magnetic Field	Power	Average Time		
Range(MHz)	Strength(V/m)	Strength(A/m)	Density(mW/cm ²)			
(A) Limits for Occupational/Control Exposures						
300-1500			F/300	6		
1500-100000		5		6		
(B) Limits for General Population/Uncontrol Exposures						
300-1500	300-1500		F/1500	30		

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1500-100000			1	30
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Friis transmission formula: Pd=(Pout*G)\(4*pi*R2)

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 the limit of MPE. 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

Operating Mode	Maximum output power (dBm)	Tune up tolerance (dBm)		Max. Tune up Power (dBm)	Antenna Gain (dBi)	Power density at 20cm (mW/cm²)	Power density Limits (mW/cm²)
WiFi 2.4G	14.81	14.81 ±	1	15.81	3.42	0.0167	1
WiFi 5.8G	13.12	13.12 ±	:1	14.12	3.18	0.0107	1

Note: WLAN&RLAN cannot support simultaneous transmission.

Result: No Standalone SAR test is required.

