

RF EXPOSURE EVALUATION

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	2A7VD-H6069
EUTek Anboten Anbo	Govee Mini Panel Lights/Govee Smart Mini Panel Lights
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
anbotek Anbo. A. hotel	Others:
Device category	Portable (<20cm separation)
	⊠ Mobile (>20cm separation)
Anbo set sbotek A	Others
Exposure classification	Occupational/Controlled exposure (S = 5mW/cm2)
otek Anboten Anbo	General Population/Uncontrolled exposure (S=1mW/cm2)
Antenna diversity	Single antenna
	☐ Multiple antennas
	Tx diversity
	Rx diversity
A botek Anbote Ar	Tx/Rx diversity
Antenna gain (Max)	BLE: 2.45dBi
anbo hotek	WiFi 2.4G: 1.54dBi
Evaluation applied	MPE Evaluation
	SAR Evaluation

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Anbotek Product Safety

Limits for Maximum Permissible Exposure(MPE)

Frequency	Electric Field	Magnetic Field	Power	Average	
Range(MHz)	Strength(V/m)	Strength(A/m)	Density(mW/cm ²)	Time	
Anboten	(A) Limits for C	Occupational/Contr	ol Exposures	Her Ano	
300-1500	Anbo. A	hotek - Anbote	F/300	botek 6 An	
1500-100000	K Arbore	Ann stek	5	6	
nborto Am	(B) Limits for Gene	eral Population/Unc	control Exposures	Am	
300-1500	Let - obotek	Anbor	F/1500	And ok	
1500-100000	nbor - Am	k stpoter	And ek 1 abotek	30	

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, 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.

Max Measurement Result

Operating Mode (dBm)	Measured	Tune up tolerance		Max. Tune	Antenna Gain	Power density at 20cm	Power density Limits
	Power			up Power			
	(dBm)		(dBm)	(dBi)	(mW/ cm2)	(mW/cm2)	
BLE	5.18	5.18	_±1	6.18	2.45	0.0015	biek .
WiFi 2.4G	17.82	17.82	±1	18.82	1.54	0.0216	An 1 botek

The simultaneous transmission for BLE + WiFi 2.4G:

S_{Limit},

=S_{BLE}/S_{limit-BLE}+ S_{WiFi 2.4G}/S_{limit-2.4G} =0.0015/1+0.0216/1 =0.0231 < 1.0

Result: PASS.

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