

### 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	2A2Y8-FC500C
EUTek Anborek Anbe	LED RGBW Spot Light
Frequency band (Operating)	☐ BT: 2.402GHz ~ 2.480GHz
Anbore Ani Otek	⊠ BLE: 2.402GHz ~ 2.480GHz
Anbotek Anbo	☐ WLAN: 2.412GHz ~ 2.462GHz
ak abotek Ambore	☐ RLAN: 5.180GHz ~ 5.240GHz
All otek Anboten	☐ RLAN: 5.260GHz ~ 5.320GHz
poten Anbe	☐ RLAN: 5.500GHz ~ 5.700GHz
botek Anbore An	☐ RLAN: 5.745GHz ~ 5.825GHz
All Lotek Anbotek Anbo	☐ Others:
Device category	☐ Portable (<20cm separation)
Anbo. K Ar hotek	⊠ Mobile (>20cm separation)
k Anbores And And	☐ Others
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm2)
tek abotek Anbore	☐ General Population/Uncontrolled exposure (S=1mW/cm2)
Antenna diversity	⊠ Single antenna
Anboren Anbo	☐ Multiple antennas
abotek Anbor	☐ Tx diversity
Anboten Anboten	☐ Rx diversity
Anbotek anbotek	☐ Tx/Rx diversity
Antenna gain (Max)	BLE: 2.32dBi
Evaluation applied	⊠ MPE Evaluation
otek anbotek Anbo	☐ SAR Evaluation



#### Limits for Maximum Permissible Exposure(MPE)

Frequency	Electric Field	Magnetic Field	Power	Average
Range(MHz)	Strength(V/m)	Strength(A/m)	Density(mW/cm²)	Time
rtarigo(ivii iz)	100	Occupational/Contr	V. N.	wotek Anl
300-1500	k 0120100	Publication and Contraction	F/300	6
1500-100000	rek - nootek	Anboro	notek 5, hotek	6 ×
anbotek Anh	(B) Limits for Gene	eral Population/Und	control Exposures	Aupo
300-1500	unbotte Anti-otek Anti-otek Anti-		F/1500	6,00,0
1500-100000	Anbores Anbo	rek - abotek	Anbo, 1	iek 30 Anbore

## Friis transmission formula: Pd=(Pout\*G)\(4\*pi\*R2)

Where

Pd= Power density in mW/cm<sup>2</sup>

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	Measured Power	Tune up tolerance	Max. Tune up Power	Antenna Gain	Power density at 20cm	Power density Limits
	(dBm)	(dBm)	(dBm)	(dBi)	(mW/ cm2 )	(mW/cm2)
BLE_2M	3.02	3.02 ±1	4.02	2.32	0.0009	And 1 hotek

Result: No Standalone SAR test is required.



Hotline

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