Anbotek Product Safety

RF EXPOSURE EVALUATION

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)

FCC ID: 2AYHW-TI7100CB1

EUT Specification

EUT tek unborek A	IOT Module
Frequency band	⊠WLAN: 2.412GHz ~ 2.462GHz
(Operating)	□ WLAN: 5.18GHz ~ 5.24GHz / 5.50GHz ~ 5.70GHz
antek Anboten Anbo	□ WLAN: 5.745GHz ~ 5.825GHz
Anbo tek abotek Anbore	⊠ Others: 2.402GHz~2.480GHz
Device category	□ Portable (<20cm separation)
A Anboten Ano	⊠Mobile (>20cm separation)
tek pootek Anboi Ai	Others
Exposure classification	Occupational/Controlled exposure
npoter Ann stek npotek	General Population/Uncontrolled exposure
Antenna diversity	⊠ Single antenna
abotek Anbote Ant	☐ Multiple antennas
All hotek Anboten Anbo	□ Tx diversity
And tek nbotek An	□ Rx diversity
tek Anbor Ar wotek	□ Tx/Rx diversity
Max. output power	WIFI 2.4G: 19.6dBm (0.0912W);
tek nbotek Anbo	BLE: 11.47dBm (0.0140W)
Antenna gain (Max)	BLE: 3.54 dBi
Anbore Ant tek Anbore	WiFi 2.4G: 3.54 dBi
Evaluation applied	MPE Evaluation
ek nbotek Anbort An	□ SAR Evaluation

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
Anbor A.	(A) Limits for (Occupational/Con	trol Exposures	botek Anbore
300-1500		Anbo	F/300	Annu otel 6 Anto
1500-100000	inbo	Anbort Am	atek 5 potek	And 6k
wet whotek (B) Limits for Gene	ral Population/Ur	ncontrol Exposur	es Anboin P
300-1500	Anboten Anb	vek - abotek	F/1500	30
1500-100000	t abatek A	notek	Anboren Anb	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.

Operating	Measured Power	Tune up tolerance (dBm)		Max. Tune up Power	-N- 10	Power density at 20cm	Power density Limits
Mode –	(dBm)			(dBm)		(mW/cm²)	(mW/cm²)
WiFi 2.4G	19.60	19.60	±1 ^{An}	20.6	3.54	0.0516	Ant Lotely Ant
BLE	11.47	11.47	±1	12.47	3.54	0.0079	Annialek

Max Measurement Result

The WLAN 2.4G and BLE can transmit simultaneously:



=SWIFI2.4/Slimit-2.4+ SBLE/Slimit-BLE

=0.0516/1+0.0079/1

=0.0595

< 1.0

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