

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 2BC3W-DS208C EUT Portable Karaoke Speaker Frequency band (Operating) ØBT BDR+EDR/BLE: 2.402GHz ~ 2.480GHz @RLAN: 2.412GHz ~ 2.462GHz RLAN: 5.180GHz ~ 2.462GHz @RLAN: 5.180GHz ~ 5.240GHz RLAN: 5.260GHz ~ 5.320GHz @RLAN: 5.500GHz ~ 5.320GHz RLAN: 5.745GHz ~ 5.825GHz Obvice category Portable (<20cm separation) ØMobile (>20cm separation) ØMobile (>20cm separation) ØMobile (>20cm separation) Øthers Exposure classification Occupational/Controlled exposure Øgeneral Population/Uncontrolled exposure Øgeneral Population/Uncontrolled exposure Multiple antenna Multiple antennas Tx diversity Single antenna Max. output power BT BDR+EDR: 1.62dBm (0.0015W) BT BLE: 0.23dBm (0.0011W) Antenna gain (Max) Antenna gain (Max) -0.58dBi	otek photo	An Anbor And And And An							
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Image: Second system Image: Second system Image: Second	Antenna diversity	Single antenna							
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	otek Anbo sek botek	BT BLE: 0.23dBm (0.0011W)							
Evaluation applied	Antenna gain (Max)	-0.58dBi							
	Evaluation applied	MPE Evaluation							
SAR Evaluation	And tak abotek Anbon	□ SAR Evaluation							

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Anbotek Product Safety

Limits for Maximum Permissible Exposure(MPE)

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Electric Field	Magnetic Field	Power Density	Average Time	
Strength(V/m)	Strength(A/m)	(mW/cm ²)	An Lotek Anb	
(A) Limits for	Occupational/Cont	trol Exposures	Anu	
Anbo, A.	lek Antore	F/300	6	
Anbore Ant	tek -nbotek	Anbo 5	6	
(B) Limits for Gen	eral Population/Ur	control Exposures	otek Anboten	
ek abotek	Anbor - An	F/1500	30	
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	Electric Field Strength(V/m) (A) Limits for 	Strength(V/m) Strength(A/m) (A) Limits for Occupational/Con	Electric FieldMagnetic FieldPower DensityStrength(V/m)Strength(A/m)(mW/cm²)(A) Limits for Occupational/Control ExposuresF/3005(B) Limits for General Population/Uncontrol Exposures	

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.

Max Measurement Result

Operating Mode	Measured Power	Tune up tolerance	Max. Tune up Power	Antenna Gain	Power density at 20cm	Power density Limits (mW/cm ²)
Anboten Ant	(dBm)	(dBm)	(dBm)	(dBi)	(mW/cm²)	(mvv/cm-)
BT BDR+EDR	1.62	1.62 ±1	1.62	-0.58	0.0003	M Nov .ek
BT BLE	0.23	0.23 ±1	0.23	-0.58	0.0002	otek 1 Anbo

Result: No Standalone SAR test is required.

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