Maximum Permissible Exposure (MPE) & Exposure evaluation

Report identification number: 1-1340/16-03-03

Certification numbers and labeling requirements	
FCC ID	2ADSJCISS
IC number	-/-
HVIN (Hardware Version Identification Number)	-/-
PMN (Product Marketing Name)	-/-
FVIN (Firmware Version Identification Number)	-/-
HMN (Host Marketing Name)	-/-

This test report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

Document authorized:

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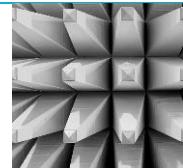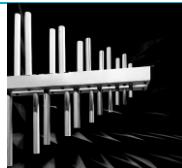
EUT technologies:

Technologies:	Max. power (peak):	Max. gain: (measured)	Min. pathloss:
Bluetooth LE	3 dBm	4.1 dBi	N/A

Prediction of MPE limit at given distance - FCC

Equation from page 18 of OET Bulletin 65, Edition 97-01

$S = PG / 4\pi R^2$ or $S = EIRP/4\pi R^2$

where: S = Power density
P = Power input to the antenna
G = Antenna gain
R = Distance to the center of radiation of the antenna

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled "Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure"

Frequency Range (MHz)	Power Density (mW/cm^2)	Averaging Time (minutes)
300 -1500	f/1500	30
1500 - 100000	1.0	30

where f = Frequency (MHz)

Prediction: worst case

		> 1500 MHz
	Technology	Bluetooth LE
P	Maximum output power	3 dBm
G	Antenna gain	4.1 dBi
R	Distance [cm]	20 cm
S	MPE limit for uncontrolled exposure	1 mW/cm^2
	Calculated Power density:	**0.001 mW/cm²**
	Percent of MPE limit	**0.1 %**

This prediction demonstrates the following:

The power density levels for FCC at a distance of 20 cm are below the maximum levels allowed by regulations.