



RF Exposure Calculation

Exposure of Humans to RF Fields Requirements

Applicant : Xanavi Informatics Corporation
Type of Equipment : Bluetooth Module
Model No. : LBMB4U8AE3
FCC ID : SJ21200U
IC : 5427A-1200U

Regulations Applied : CFR 47 FCC 15.247(b)(5)
References Documents : CFR 47 FCC 1.1307(b), 1.1310, 2.1093 and
OET65 Supplement C

RF Exposure Calculations :

The following power density, calculated at 20cm from the radiated element, is in accordance with FCC OET65 Appendix B Table(B) "Limit for General Population / Uncontrolled Exposure". The maximum permissible exposure level is defined with 1mW/cm².
The power density can be calculated as below:

$$S = P * G / 4\pi R^2$$

Where:

R = 20 cm

P = 0.74 mW(-1.30dBm)(Max. conducted output power at antenna terminal)

G = 1.20(numeric gain) = 0.8 dBi(Max. antenna Gain)

S = calculated exposure level at 20 cm

Then maximum power density generated at 20 cm is 0.0002 mW/cm²

Summary:

The EUT complies with the RF exposure requirement of the above regulation.

Masaaki Takahashi
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