

Annex Information

RF EXPOSURE



Radio Frequency Exposure Information

Testing was performed in accordance with the requirements of FCC Part 15.247(i)

Frequency Hopping Spread Spectrum transmitters operating in the 2402 - 2480 MHz bands are required to be operated in a manner that ensures that the public is not exposed to RF energy levels in accordance with CFR 47, Section 1.1307(b)(1).

Maximum Permissible Exposure (MPE) Evaluation

Applicant : Victor Company of Japan, Limited
Equipment : Bluetooth Module
Model No. : NAU0004
FCCID : ASIV7V002

MPE Calculations

According to the OET Bulletin 65 (Edition 97-01)

$$S = \frac{PG}{4\pi R^2}$$

$$R = \sqrt{\frac{PG}{4\pi S}}$$

Where:

S=Power density (in appropriate units, e.g. mW/cm²)

P=Power input to antenna (in appropriate units, e.g., mW)

G=Power gain of the antenna in the direction of interest relative to an isotropic radiator

R=Distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Tx Frequency= 2402 to 2402 (MHz)
Maximum peak power= 3.57 (dBm) (=0.002275W)
Antenna gain= -0.18 (dBi)

S= 1.00 (mW/cm²)
P= 2.28 (mW) (=Maximum peak power)
G= 0.96 (numeric)
R= 0.42 (cm)

Calculated minimum separation distance from antenna : 0.42 (cm)
(R = 20.0 cm : S=0.000436 mW/cm²)

Results:

Calculations show that the Radio devices with described antenna complied with Maximum Permissible Exposure (MPE) limit for the General Population / Uncontrolled Exposure