8.9 Radio frequency hazard

8.9.1 Regulation

15.247(i) Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this Chapter.

8.9.2 Result

MPE calculation to the FCC ID:

These equations are generally accurate in the far field of an antenna but will over predict power density in the near field, where they could be used for making a “worst case” prediction.

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

where S = power density (in appropriate units, e.g. mW/cm^2)
P = power input to the antenna (in appropriate units e.g. mW)
G = power gain of the antenna in the direction of interest relative to the isotropic radiator
R = distance to the center of radiation of the antenna (appropriate units e.g. cm)

Or

$S = EIRP/(4\pi R^2)$

where EIRP = equivalent isotropically radiated power

Calculation:
(Calculated for max. EIRP)
EIRP: 33.0 dBm = 2.0 W
calculated at distance of 20 cm:
power density = 2000 mW /($4*\pi*20^2$) = 0.397 mW/ cm^2

Limit:

0.451 mW/ cm^2 is the reference level for general public exposure according to the OET Bulletin 65, Edition 97-01 Table 1.

The equipment meets the requirements	**Yes**	~~No~~	~~N.t.~~

Further test results are attached	~~Yes~~	**No**	

N.t.* See page no. 42

9. Additional information to the test report

Remarks

N.t.[1] Not tested, because the antenna is part of the PCB

N.t.[2] Not tested, because the EUT is directly battery powered

N.t.[3] Not tested, because not applicable for this type of equipment

End of test report

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