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.

8.9.2 Test 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.

$$S = PG/4\pi R^2 \quad \text{Or} \quad S = EIRP/(4\pi R^2)$$

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)
EIRP = equivalent isotropically radiated power

Calculation:

Radio frequency hazard (Section 15.247)					
Max. EIRP		Distance	Calculated Power Density	Limit	Margin
dBm	mW	cm	mW / cm^2	mW / cm^2	mW / cm^2
4.20	**2.63**	20	**0.00052**	1*	**0.99948**
***Limit: the reference level for general public exposure according to the OET Bulletin 65, edition 97-01 Table 1.**					

Test Cables used	---
Test equipment used	---

The equipment passed the conducted tests	**Yes**	~~No~~	~~N.t.~~ *

Test setup photos / test results are attached	~~Yes~~	**No**	Annex no.:

N.t.* see clause: 9

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