

RF Exposure / MPE Calculation

No. : 31DE0278-HO-01

Applicant : Roland Corporation
Type of Equipment : Microphone
Model No. : DR-WM55
FCC ID : SOP411981Y
IC Number : 9569A-411981Y

Roland Corporation declares that Model : DR-WM55
complies with FCC radiation exposure requirement specified in the FCC Rules 2.1093(for portable).

The "DR-WM55" has 5.89 mW of conducted Peak Output power and 12.02 mW of EIRP.
This kind of equipment is below 60/frequency[GHz] mW(TCB Exclusion List)
so that SAR testing is excluded. The Following calculation is the reference data for 20cm distance.

RF Exposure Calculations:

The following information provides the minimum separation distance for the highest gain antenna provided with the "DR-WM55" as calculated from FCC OET Bulletin 65 Appendix A, Table (B) Limits for General Population / Uncontrolled Exposure. This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1.0mW/cm² uncontrolled exposure limit. The Friis formula used was:

$$S = (P * G) / (4 * \pi * r^2)$$

Where

P = 5.89 mW (Maximum peak output power)
G = 2.04 Numerical Antenna gain; equal to 3.10 dBi
r = 20.0 cm

For: DR-WM55

$$S = 0.00239 \text{ mW/cm}^2$$

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124