

Federal Communications Commission,
7435 Oakland Mills Road,
Columbia, MD
21046
USA

**Maximum Permissible Exposure (MPE) Compliance Statement
For RPT 503 Transmitter**

The Multitone RPT 503 Transmitter (447-470MHz) equipment, contains a low power (5 Watts) transmitter and is intended for use with unity gain (or less) end-fed dipole and/or a "local" helical, or whip antenna. The equipments performance may be characterized in accordance with the MPE requirements of 47 CFR, as below.

At the RPT 503's maximum rated operating frequency of 470MHz, the MPE limit for the General Population/Uncontrolled Exposure is 0.3mW/cm². The RPT 503 may be shown to comply with this limit, at a line of sight distance of 37cm from the antenna element.

Derivative analysis of this result is as follows: -

For the general uncontrolled population, the Maximum Permissible Exposure (MPE) limit is given by the formula $F/1500 \text{ mW/cm}^2$, where F is the operating frequency of the product. This equates to a limit of 0.3mW/cm².

The prediction method provided, is based on the following worst-case (far-field) calculation: -

$$\text{Power Density (P}_D\text{)} = \text{EIRP}/(4\pi R^2)$$

Using this formula for the RPT 503 with the following values inserted; $P_D = 0.3\text{mW/cm}^2$;
EIRP = 5000mW (worst case), yields a radius figure of 36.42cm.

The Installation instructions include a warning under the heading "Important Safety Information". This warning instructs the installer to ensure that the unit and its associated antenna, are mounted in a position where people will not approach, or be located within, 1m of the radiating antenna. This distance provides an additional safety margin for the product.

Dated this 12th Day Of June 2008.

Signed: 

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