

TECHNICAL STATEMENT
PROPOSED NEW LPFM STATION
MOCA, PUERTO RICO
CHANNEL 299

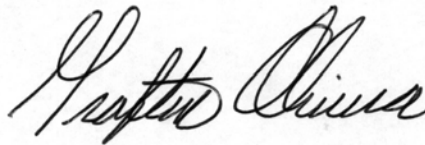
The proposed LPFM station will be side-mounted on an existing guyed tower supporting structure. The antenna will be located 23 meters above ground level with a height above mean sea level of 59.3 meters. A maximum radiated power (ERP) of 100 watts using a circularly polarized, ERI, 4-bay, half-wavelength transmitting antenna has been assumed for calculation purposes.

With respect to the potential for human exposure to radio frequency (RF) energy, calculations prepared in accordance with FCC Bulletin OET-65.* Indicate that the proposal will not result in human exposure to RF energy at ground level in excess of FCC standards. The calculation at 2-m above ground was made using the following formula from the OET-65 document:

$$S = \frac{(33.4)F^2P}{R^2}$$

where, S = power density in $\mu\text{W}/\text{cm}^2$, F = relative field factor at the angle to the calculation point, P = the total effective radiated power relative to a dipole in watts, and R = distance from the antenna radiation center to the calculation point in meters. Based on a maximum relative field factor of 0.4 for any depression angle greater than 20 degrees below horizon for the proposed ERI, 4-bay, half-wavelength antenna, a total effective radiated power of 200 watts (circular polarization) and an antenna radiation center height above ground of 23 m, the calculated power density will not exceed $2.4 \mu\text{W}/\text{cm}^2$. Therefore, the calculated RF exposure at 2 m above ground will not exceed 1.2 % of the limit of $200 \mu\text{W}/\text{cm}^2$ for the general population and uncontrolled environments. Therefore, the proposal complies with the FCC limits for human exposure to RF energy.

The applicant, in coordination with other users of the transmission facility, shall reduce power or cease operation as necessary to prevent RF exposure above the FCC recommended limits.



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* Federal Communications Commission OET Bulletin No. 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (Edition 97-01, August 1997).