

## Site Selection and RF Energy Exposure

prepared 7 July 2019 for

**UniMas San Francisco LLC**

KFSF-DT Vallejo, CA

Channel 34 250 kW-DA 363 m

This application proposes continued use of the Sutro Tower multiple-use communications site, located in San Francisco. Use of currently utilized, shared sites in areas with similar structures is environmentally preferred. The proposed antenna is an existing, multi-station auxiliary antenna installed by the tower owner, Sutro Tower, Inc.

Operation on channel 34, with its center frequency of 593 MHz, implies a radiofrequency radiation exposure guideline value of  $395 \mu\text{W}/\text{cm}^2$  for the general population. The radiation center of the specified Dielectric TUA-C4SP-12/40U-1-S antenna is 131.6 meters above ground level, horizontally polarized. The maximum downward radiation value, at depression angles greater than  $10^\circ$ , does not exceed 0.183 (at a depression angle of  $62\frac{1}{2}^\circ$ ). Consequently, the worst-case predicted exposure level at 2 meters above ground level will not exceed  $16.1 \mu\text{W}/\text{cm}^2$ . This exposure level is 4.08% of the guideline value, below the “responsibility threshold” of 5%. Access to the site and tower base is restricted by fencing and marked by appropriate warning signs, with a fulltime security guard. A formal RFE exposure control protocol is in effect for on-tower work. The applicant recognizes its responsibility to reduce power or interrupt operation during tower work, to ensure safe working conditions for rigging personnel.



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