

TECHNICAL SUMMARY
STA REQUEST
LOW POWER DIGITAL STATION KDTF-LD
SAN DIEGO, CALIFORNIA
CHANNEL 24 15 KW (DA)

1. The instant application is for an STA to operate KDTF-LD on in core, pre-transition channel 24 at San Diego, California with a directional antenna maximum effective radiated power (ERP) of 15 kW using a SBP model UPSL horizontally polarized directional antenna oriented at 240° true. The antenna radiation center height will be 806 m AMSL. There will be no change in the overall structure height of the existing structure (no ASRN).

2. Eligibility/Pre-Transition Channel Availability: KDTF-LD received a 120 day letter from T-Mobile indicating that the current KDTF-LD operation on channel 51 would likely interfere with its new 600 MHz band license. Therefore, pursuant to the FCC's Public Notice dated June 14, 2017 entitled "*Incentive Auction Task Force and Media Bureau Set Forth Tools Available to LPTV/Translator Stations Displaced Prior to the Special Displacement Window*" (DA 17-584, MB Docket No. 16-306, GN Docket No. 12-268), KDTF-LD is eligible to submit this STA to operate on channel 24 which is currently an available pre-transition channel. It is noted that KDTF-LD currently has a pending displacement application which proposes post-transition operation on channel 25 (LMS File No. 0000053785). The KDTF-LD displacement application also contains a request for waiver of the contingent application rule (Section 73.3517) as channel 25 is a currently precluded from use by co-owned KBNT-CD on channel 25 at San Diego (FCC File No. BLDTA-20121203AYP). However, KBNT-CD will relocate to channel 24 post-transition. Therefore, the applicant agrees with the FCC condition that it cease transmitting on channel 24 prior to the initiation of post-transition channel 24 operation by KBNT-CD.

3. Interference Compliance: As indicated in the attached *TVStudy* analysis, KDTF-LD's proposed channel 24 displacement operation meets the FCC's interference protection requirements with respect to all protected facilities based on a pre-transition allocation environment. A cell size of 1.0 km and a profile resolution of 1 km points/km were utilized for the *TVStudy* analysis.

4. RFR Compliance: The proposed facilities were evaluated in terms of potential radiofrequency radiation (RFR) exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna will be located 25 meters above ground level. The total DTV ERP is 15 (horizontal polarization). A greater than expected vertical plane relative field value of 0.2 is presumed for the antenna's downward radiation (-63° to -90° elevation). The calculated power density at a point 2 meters above ground level is 37.9 $\mu\text{W}/\text{cm}^2$ which is 10.7% of the FCC's recommended limit of 355.3 $\mu\text{W}/\text{cm}^2$ for channel 25 for an uncontrolled environment. If necessary, RF measurements will be made to ensure that the level is within recommended limits.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be taken to assure worker safety with respect to RFR exposure. Such measures include limiting the exposure time, wearing protective clothing, reducing power to an acceptable level or termination of transmitter output power all together until workers leave the restricted area.