



ENGINEERING STUDY
LICENSE MODIFICATION APPLICATION
KDEE-LP

TECHNICAL STATEMENT

This technical statement and attached exhibits were prepared on behalf of the California Black Chamber of Commerce, licensee of LP100 station KDEE-LP, Facility ID #123915, in support of an application to correct the facility coordinates and the AGL height of the antenna.

It was recently determined that the KDEE-LP antenna location on the current license is incorrect and specified a location across the street, about 0.12km away from the actual location (See Exhibit B). There is no physical change proposed. The original application also filed for and was granted based upon an error in the tower height. The original application specified an AGL height of 60 meters. In fact, the AGL height is 60 feet, or 18.3 meters. Calculating for the center of radiation for a 2-element full-wave spaced antenna, the COR is 17 meters. Based upon this information, the licensed power should be 100 watts.

Facilities Proposed

Location (NAD83)	38° 36' 23.5" N Latitude, 121° 26' 40.5" W Longitude
Channel	248 (97.5 MHz)
Tower Overall AGL Height-	18.3m
Tower ASR	N/A
Proposed Antenna	Non-D
Antenna AGL Height-	17m
Antenna HAAT	14.2m
Site AMSL Height-	10m
ERP	100 Watts

COMPLIANCE WITH 73.807 [LPFM Spacing], 73.825 [TV 6], and 73.827 [Translator input]

The corrected LPFM coordinates are only 0.12km from the licensed (incorrect) coordinates. Based upon the allocation study in Exhibit A, the corrected location is fully compliant with the spacing table in 73.807(a).

Because this allotment is in the commercial band there are no protections required to any TV 6 facility and since the facility is only moving 0.12km it is expected there will be no adverse effect to any translator input.

ENVIRONMENTAL EXHIBIT

The LPFM utilizes a non-directional antenna located on a non-registered pole atop a single story building.

The RF density near the tower was calculated using an EPA Type 2 “Opposed V Dipole” antenna setting at 100 watts vertical and horizontal, using the currently licensed Jampro JLLP-2 non-directional, 2 element, full- wavelength spaced antenna.

Using the FCC web app “FM Model”¹, it was calculated that the proposed antenna contributes approximately $9.3\mu\text{W}/\text{cm}^2$ or 4.7 % of the total allowable $200\mu\text{W}/\text{cm}^2$ at rooftop level. The maximum was found to be 6.6 meters from the base of the tower. There are no tall buildings near the antenna.

Based upon the above evaluation, the antenna is compliant with NIER requirements.

The LPFM along with other users at the site agrees to reduce power or cease operation during periods of maintenance to avoid potentially harmful exposure of personnel to non-ionizing RF radiation.

¹ <https://www.fcc.gov/general/fm-model>

Respectfully Submitted

A handwritten signature in cursive script that reads "Bert Goldman". The signature is fluid and extends to the right with a long, sweeping tail.

Bert Goldman
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EXHIBIT A- ALLOCATION STUDY

ComStudy 2.2 search of channel 248 (97.5 MHz Class LP100) at 38-36-23.5 N, 121-26-40.5 W.

CALL	CITY	ST CHN CL	DIST	SEP	BRNG	CLEARANCE
KZAC-LP	SACRAMENTO	CA 247 LP100	13.57	14.00	180.7	-0.4 di minimis
KZAC-LP CP	SACRAMENTO	CA 247 LP100	15.36	14.00	196.9	1.4
KSZS-LP	DAVIS	CA 248 LP100	25.57	24.00	251.3	1.6
K249FJ	ROCKLIN	CA 249 D	23.06	21.00	32.1	2.1
KWIN	LODI	CA 249 A	61.61	56.00	164.6	5.6
KLMG	ESPARTO	CA 250 A	41.26	29.00	294.5	12.3
KCFS-LP	EL DORADO HILLS	CA 247 LP100	27.67	14.00	58.7	13.7
KHHZ	GRIDLEY	CA 249 B1	100.40	74.00	6.6	26.4
KLLC	SAN FRANCISCO	CA 247 B	124.72	97.00	227.9	27.7

LMS AS OF 6/21/2022

EXHIBIT B- Coordinate Correction Map

