

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of EDGEWATER BROADCASTING, INC., licensee of FM translator station K268CO, Channel 268D in Lake Los Angeles, California, in support of its Application for Construction Permit to specify a different directional antenna pattern and effective radiated power, as well as operation as a translator for FM station KPWR, Channel 290B in Los Angeles, California.

It is proposed to mount a Scala CA5-FM/CP/RM directional, circularly-polarized antenna at the 7-meter level of the existing 18.3-meter tower on which the licensed K268CO antenna is located. The proposed effective radiated power for the facility is 10 watts. Exhibit B is a map upon which the new predicted 60 dBu service contour plotted. In Exhibit C, we have plotted the translator's proposed 54 dBu contour in relation to that of KPWR, based on use of 360 uniform azimuths to derive both station's contours. As shown, the translator's contour is completely contained within that of KPWR, a requirement for FCC approval of a fill-in translator. Since no change in the transmitter site of K268CO is proposed herein, it is clear that the proposed 60 dBu contour will overlap some portion of the licensed 60 dBu contour, as required by the Commission for the processing of a translator proposal as a minor-change.

The proposed facility meets the FCC's contour protection requirements to all facilities, as shown in Exhibit D, with the exception of KPTH and KSCA. In Exhibit D, we provide justification for a Commission waiver of its Second-Adjacent Interference Rules with regard to these two stations.

Azimuth pattern information for the proposed antenna is provided in Exhibit E. A power density calculation appears as Exhibit F.

EXHIBIT A

Due to the diminutive height of the existing tower (18.3 meters above ground) and its location with respect to the nearest airport runways, and because no change in the overall height or location of the tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, and for the same reasons, antenna structure registration of the tower with the Federal Communications Commission is not required.

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

A handwritten signature in blue ink, appearing to read "K. T. Fisher". The signature is stylized with a large "K" and "F" and a smaller "T" in the middle.

KEVIN T. FISHER

February 22, 2018

**CONTOUR POPULATION
2015 U.S. CENSUS DATA
142,636 (42,805 HH)**

Smith and Fisher, LLC

Lancaster

Quartz Hill

**PROPOSED K268CO
54 DBU FCC CONTOUR**

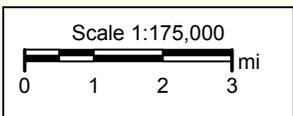
Palmdale

+ K268CO

Little Rock

Vincent

Acorn



**EXHIBIT B
PREDICTED SERVICE CONTOUR
PROPOSED K268CO
CH. 268D - LAKE LOS ANGELES, CA**

Smith and Fisher, LLC

KPWR 54 DBU
FCC CONTOUR

Lancaster

Quartz Hill

Palmdale

K268CO

Little Rock

Vincent

Acron

PROPOSED K268CO
54 DBU FCC CONTOUR

KPWR

Palmdale

Burbank

Los Angeles

Altadena

Glendale

Pasadena

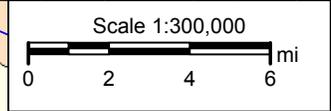


EXHIBIT C
CONTOUR COMPARISON
KPWR(FM) AND PROPOSED K268CO
CH. 268D - LAKE LOS ANGELES, CA

CONTOUR PROTECTION STUDY
PROPOSED FM TRANSLATOR K268CO
CHANNEL 268D – LAKE LOS ANGELES, CALIFORNIA

A contour protection study was conducted for the proposed K268CO facility and the results are provided in Exhibit D-1. As shown, there are only five instances in which the contour protection requirements are in question: KGFM(FM), Channel 268B in Bakersfield, California; KRTH(FM), Channel 266B in Los Angeles, California; and, KSCA(FM), Channel 270B in Los Angeles, and two LPFM authorizations to operate on Channel 268 in Pasadena, California (KHBG-LP and BNPL-20131114AYY, which must share use of this channel in this community).

In Exhibit D-2, we have plotted the protected 54 dBu contour of KGFM. To that map, we have added the proposed 34 dBu f(50,10) interference contour for K268CO. As shown, the latter does not overlap the protected KGFM contour, and therefore meets the Commission's interference rules with respect to KGFM. On the same map, we have plotted the 60 dBu service contours of the two Pasadena LPFM facilities. We also have shown the proposed K268CO f(50,10) 40 dBu interference contour toward these stations. Again, no overlap of these contours would exist from the proposed K268CO facility.

The proposed K268CO site is located within the protected 54 dBu contours of KRTH and KSCA. As a result, a waiver of the Commission's interference rules with regard to these second-adjacent-channel stations is requested and believed to be justified for the reasons stated below.

Attached as Exhibit D-3 is a map upon which the proposed site is plotted. To that map, we have added the KRTH 79.2 dBu contour and the KSCA 67.4 dBu contour, both of which pass very close to the proposed site. Based on the FCC's 40 dB desired-to-undesired ratio that applies to second-adjacent-channel situations such as these, the proposed interference contour to KRTH is the

EXHIBIT D

119.2 dBu contour and that to KSCA is the 107.4 dBu contour. If one assumes a maximum effective radiated power of 10 watts in all depression angles for the LPFM antenna, the interference contour toward KRTH would extend only 24 meters from the proposed antenna and toward KSCA would extend 95 meters from the proposed antenna. We have conducted a population analysis, based on the 2010 U.S. Census database, for these interference contours and conclude that this area is unpopulated. Exhibit D-4 is a Google Earth photograph of the proposed site to which we have added a 95-meter arc (which represents the largest interference contour). As shown, there are no dwellings within the interference arc.

As a result, a waiver of the FCC's 2nd-adjacent-channel spacing Rule with regard to KRTH(FM) and KSCA(FM) is respectfully requested and believed to be justified.

EXHIBIT D-1

PROPOSED FM TRANSLATOR K268CO
 CH. 268D - LAKE LOS ANGELES, CALIFORNIA
 REFERENCE 34 32 50.0 N. CH# 268D - 101.5 MHz, Pwr= 0.01 kW DA, HAAT= 0.0 M, COR= 1595 M DISPLAY DATES
 118 12 56.7 W. Average Protected F(50-50)= 3.15 km DATA 02-15-18
 Standard Directional SEARCH 02-22-18

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
266B Los Angeles	KRTH	LIC _CX CA		158.9 339.0	38.05 BMLH20071015AJG	34 13 38.0 118 04 00.0	51.000 955	11.5 1854	102.6 Matthew H. McCormick	14.2	-64.9*
270B Glendale	KSCA	LIC _CX CA		158.6 338.7	38.53 BMLH20111031ADQ	34 13 26.0 118 03 45.0	4.800 863	4.3 1763	73.8 Univision Radio Stations G	21.8	-35.6*
268B Bakersfield	KGFM	LIC _CN CA		334.4 154.1	109.78 BLH19960516KC	35 26 17.0 118 44 22.0	6.700 396	129.8 1111	67.4 Agm California, Inc.	-23.4*	13.5
268L1 Pasadena	NEW	CP CA		166.9 346.9	46.61 BNPL20131114AYY	34 08 17.0 118 06 01.0	0.100 -140	232	Prism Church Of Los Angele	16.3	-4.6
268L1 Pasadena	KHBG-LP	LIC CA		171.1 351.2	45.34 BLL20171016AEP	34 08 36.0 118 08 23.0	0.100	300	National Hispanic Media Co	15.9	-3.5
268L1 West Covina	KEHS-LP	CP CA		155.4 335.6	58.97 BNPL20131115AAB	34 03 49.6 117 56 57.0	0.100 -79	131	Edgewood High School	27.7	5.7
268L1 El Monte	KQSG-LP	LIC CA		170.5 350.5	55.27 BLL20171026ABV	34 03 21.0 118 06 58.0	0.100 26	148	The Emperor's Circle Of Sh	25.7	5.9
268L1 Santa Clarita	KZNO-LP	LIC CA		248.7 68.5	36.00 BLL20170412ABJ	34 25 45.0 118 34 51.1	0.100	399	Santa Clarita Public Servi	13.5	7.7
268L1 Panorama City	NEW	CP CA		208.5 28.4	37.16 BNPL20131114BLZ	34 15 11.0 118 24 33.0	0.050 -87	315	Ballet Folklorico Ollin	18.8	11.6
268L1 Los Angeles	KQBH-LP	CP CA		178.8 358.8	55.75 BNPL20131114AWZ	34 02 41.0 118 12 11.0	0.050 8	124	Boyle Heights Arts Conserv	31.7	12.7
268L1 Los Angeles	KZKA-LP	LIC CA		184.1 4.1	54.77 BLL20161213ACH	34 03 17.0 118 15 31.0	0.025 56	173	Los Angeles Academy Of Art	34.5	16.7
270D Santa Clarita	KSCA-FM1	LIC DV_ CA		235.6 55.4	42.66 BLFTB20131025AED	34 19 48.0 118 35 56.0	0.090	0.6 1071	23.9 Univision Radio Stations G	38.0	18.7
268L1 West Covina	KQPV-LP	CP CA		135.8 316.1	74.36 BNPL20131114AWN	34 04 00.0 117 39 08.8	0.100 -16	360	Oriental Culture Center	42.8	20.9
268L1 Anaheim	KGFI-LP	CP CA		151.9 332.2	83.61 BPL20170921AAO	33 52 55.3 117 47 20.3	0.090 3	163		52.5	29.3
268L1 Anaheim	KGFI-LP	LIC CA		151.9 332.2	83.61 BLL20170918ADI	33 52 55.3 117 47 20.3	0.050	157		55.5	30.0
268L1 Anaheim	KOCL-LP	LIC CA		158.1 338.3	83.72 BLL20171127AAP	33 50 48.1 117 52 39.1	0.100	82	The Church In Anaheim	52.7	31.4
268D Los Angeles	K268DD	LIC DV_ CA		192.9 12.8	61.49 BLFT20170830ABJ	34 00 25.0 118 21 55.0	0.024	2.1 148	0.9 El Sembrador Ministries	54.0	33.0
268L1 Los Angeles	KFQM-LP	CP CA		209.3 29.1	63.72 BNPL20131114BDA	34 02 46.3 118 33 16.1	0.100 -10	153	Craft & Folk Art Museum	41.8	37.3
268L1 Long Beach	KZXA-LP	CP CA		176.6 356.6	83.09 BNPL20131114BGY	33 47 58.0 118 09 44.0	0.005 137	148	Catalyst Long Beach Inc	56.0	37.8
268L1 Corona	KORM-LP	LIC CA		140.0 320.4	103.47 BLL20091026ABT	33 49 55.5 117 29 41.8	0.100	348	Templo Nueva Vida, Inc.	49.7	44.7

Terrain database is USGS 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
 Contour distances are on direct line to and from reference station. Reference zone= , Co to 3rd adjacent.
 All separation margins (if shown) include rounding.
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
 "*"affixed to 'IN' or 'OUT' values = site inside restricted contour.



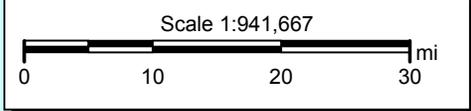
Smith and Fisher, LLC

KGFM 54 DBU PROTECTED CONTOUR

PROPOSED K268CO 34 DBU INTERFERENCE CONTOUR TO KGFM

PROPOSED K268CO 40 DBU INTERFERENCE CONTOUR TO LPFMs

TIME-SHARED LPFM 60 DBU PROTECTED CONTOURS



**EXHIBIT D-2
CONTOUR PROTECTION OF KGFM(FM) AND
TWO LPFM AUTHORIZATIONS IN PASADENA, CA
PROPOSED K268CO
CH. 268D - LAKE LOS ANGELES, CA**

Smith and Fisher, LLC

Lancaster

Quartz Hill

Palmdale

KRTH 79.2 DBU
CONTOUR

K268CO

KSCA 67.4 DBU
CONTOUR

Vincent

Little Rock

ACTION

do

KRTH
KSCA

Burbank

Los Angeles

Altadena

Scale 1:300,000



Palmdale

Pasadena

Sier

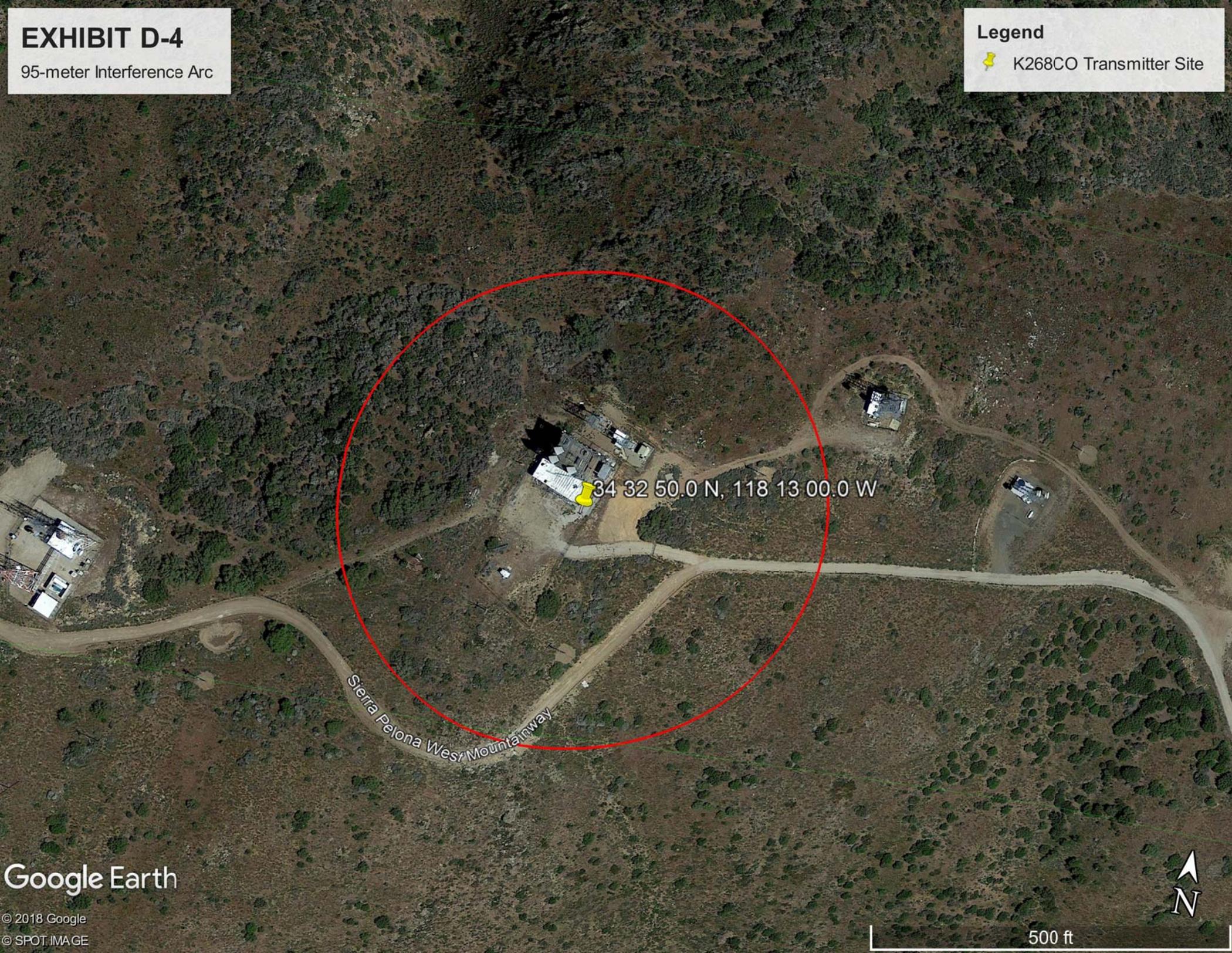
EXHIBIT D-3
2ND-ADJACENT-CHANNEL WAIVER
TO KRTH(FM) AND KSCA(FM)
PROPOSED K268CO
CH. 268D - LAKE LOS ANGELES, CA

EXHIBIT D-4

95-meter Interference Arc

Legend

 K268CO Transmitter Site



Google Earth

© 2018 Google
© SPOT IMAGE



500 ft

CA5-FM/CP/RM

FM Yagi Antenna

88—108 MHz

KATHREIN

The KUSA CA5-FM/CP/RM is a ruggedly built yagi antenna, designed for professional FM transmit and receive applications.

Like all KUSA antennas, the CA5-FM/CP/RM is made of the finest materials using state of the art electrical and mechanical designs resulting in superior performance and long service life.

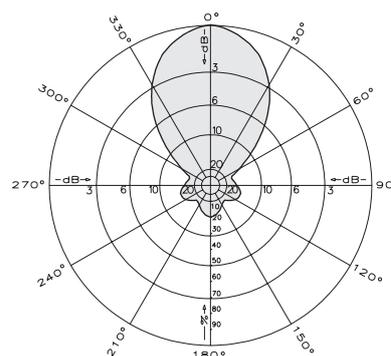
The CA5-FM/CP/RM may be used stand alone or in stacked arrays for higher gain, increased side-lobe suppression, or custom azimuth patterns.



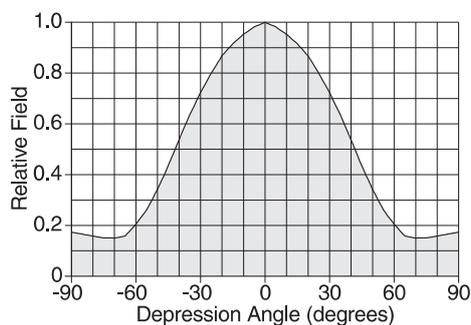
Specifications

Frequency range	Any specified FM channel 88 to 108 MHz
Gain	6 dBd
Power gain	3.98
Impedance	50 ohms
VSWR	<1.5:1
Polarization	Circular
Front-to-back ratio	>14 dB
Maximum input power	250 watts
H-plane beamwidth	61 degrees (half-power)
E-plane beamwidth	61 degrees (half-power)
Connector	N female
Weight	35 lb (15.9 kg)
Dimensions	79 x 56 x 50.8 inches maximum (2007 x 1422 x 1290 mm)
Wind load at 100 mph (161 kph)	
Front	98 lbf (436 N)
Wind survival rating*	120 mph (193 kph)
Shipping dimensions	84 x 13 x 8 inches (2134 x 330 x 203 mm)
Shipping weight	38 lb (17.2 kg)
Mounting	For masts of 2.375 inch (60 mm) OD.

*Mechanical design is based on environmental conditions as stipulated in TIA-222-G-2 (December 2009) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details.



Azimuth pattern (E-plane)



Elevation pattern (H-plane)

10748d subject to alteration



All specifications are subject to change without notice.
The latest specifications are available at www.kathreinusa.com

POWER DENSITY CALCULATION

PROPOSED FM TRANSLATOR K268CO
CHANNEL 268D – LAKE LOS ANGELES, CALIFORNIA

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Lake Los Angeles facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 10 watts (H,V), an antenna radiation center 7 meters above ground, and based on the elevation pattern of the proposed Scala antenna, a maximum power density value at a height of two meters above ground of 0.011 mW/cm^2 is calculated to occur 5 meters east-southeast of the base of the tower. Since this is only 5.7 percent of the 0.20 mW/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating in the FM band, a grant of this proposal may be considered a minor environmental action with respect to public exposure to non-ionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive non-ionizing radiation.