

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of TRINITY BROADCASTING OF TEXAS, INC., licensee of full-power digital television station KDTX-DT, Channel 45 in Dallas, Texas, in support of its Application for Construction Permit to specify operation on its post-repack channel, Channel 21. No change in site location, antenna azimuth pattern or antenna height is proposed herein.

It is proposed to utilize the presently licensed RFS directional, horizontally-polarized, broadband panel antenna that is currently mounted at the 449-meter level of the existing 498-meter KDTX-DT tower. The proposed effective radiated power for the facility is 611 kW, which is the allotted repack power level for KDTX-DT. Exhibit B is a map upon which the predicted service contours are plotted. As shown, the community of Dallas is completely encompassed by the proposed 48 dBu city-grade service contour.

Azimuth and elevation pattern information for the licensed antenna are provided in Exhibit C. Since the facility proposed herein essentially specifies the repack allotment facility assigned to KDTX-DT, no interference study is included herein. A power density calculation appears as Exhibit D.

Since no change in the overall height or location of the existing KDTX-DT tower is proposed herein, the Federal Aviation Administration has not been notified of this application. In addition, the Federal Communications Commission issued Antenna Structure Registration Number 1059733 to this tower.

EXHIBIT A

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", with a stylized, cursive-like script.

KEVIN T. FISHER

May 22, 2017

CONTOUR POPULATION
2015 U.S. CENSUS DATA
CITY-GRADE : 7,054,318 (2,675,418 HH)
NOISE-LIMITED : 7,273,103 (2,767,240 HH)

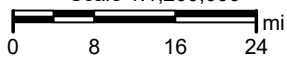


**FCC NOISE-LIMITED
SERVICE CONTOUR**

**FCC CITY-GRADE
CONTOUR**

EXHIBIT B
PREDICTED SERVICE CONTOURS
PROPOSED KDTX-DT
CHANNEL 21 - DALLAS, TEXAS

Scale 1:1,200,000



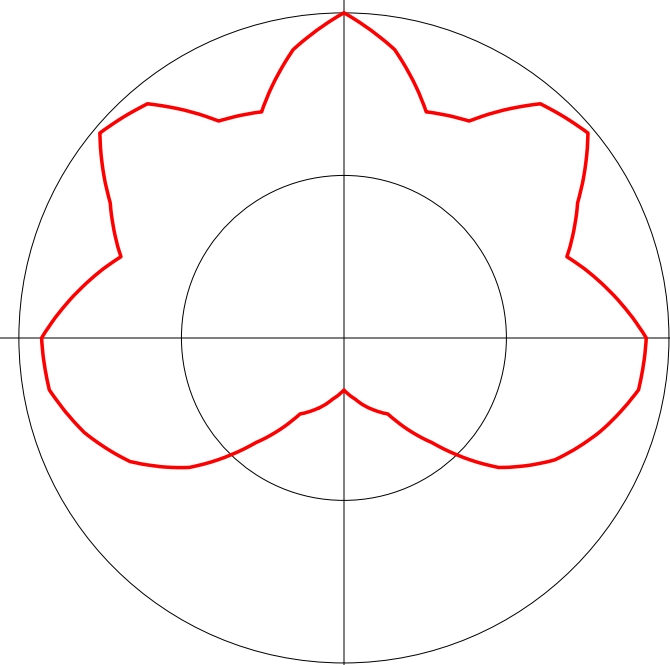
KDTX-DT Antenna Azimuth Pattern

Pre-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	1.0
10.0	0.9
20.0	0.74
30.0	0.77
40.0	0.94
50.0	0.98
60.0	0.83
70.0	0.73
80.0	0.83
90.0	0.93
100.0	0.92
110.0	0.84
120.0	0.75
130.0	0.62
140.0	0.42
150.0	0.27
160.0	0.23
170.0	0.19
180.0	0.16
190.0	0.19
200.0	0.23
210.0	0.27
220.0	0.42
230.0	0.62
240.0	0.76
250.0	0.85
260.0	0.92
270.0	0.93
280.0	0.83
290.0	0.73
300.0	0.83
310.0	0.98
320.0	0.94
330.0	0.77
340.0	0.74
350.0	0.9

Rotation Angle = 0

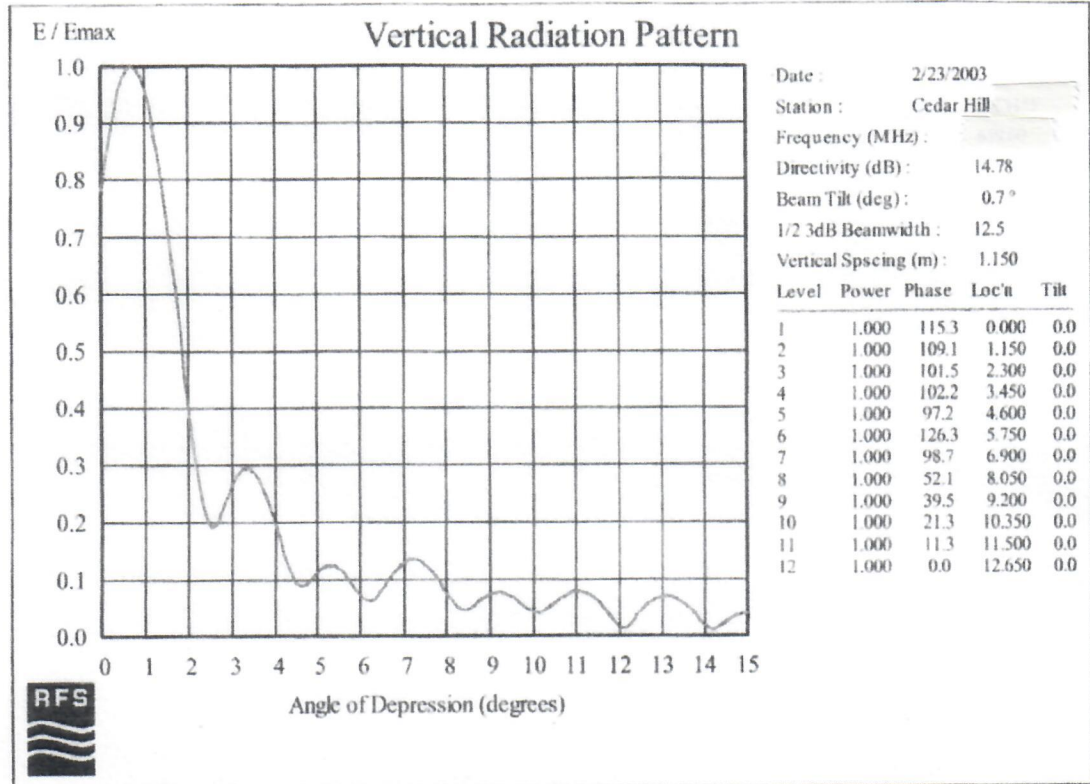
EXHIBIT C



RADIO FREQUENCY SYSTEMS



PHP36C – CEDAR HILLS



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-90	0.0000	-60	0.0050	-30	0.0105	0	0.7824	30	0.0047	60	0.0081
-85	0.0008	-55	0.0066	-25	0.0358	5	0.1140	35	0.0100	65	0.0115
-80	0.0030	-50	0.0850	-20	0.0994	10	0.0427	40	0.0051	70	0.0073
-75	0.0095	-45	0.0201	-15	0.0598	15	0.0407	45	0.0078	75	0.0054
-70	0.0036	-40	0.0131	-10	0.0761	20	0.0411	50	0.0332	80	0.0055
-65	0.0117	-35	0.0135	-5	0.0581	25	0.0902	55	0.0170	85	0.0003
										90	0.0012

Vertical Directivity (14.78dBd)
 FCC Data Format
 Date 23-Feb-03

POWER DENSITY CALCULATION

PROPOSED KDTX-DT
CHANNEL 21 – DALLAS, TEXAS

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Dallas facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 611 kW, an antenna radiation center 449 meters above ground, and the specific elevation pattern of the licensed RFS antenna, maximum power density two meters above ground of 0.000066 mW/cm^2 is calculated to occur 375 meters from the base of the tower. Since this is significantly less than 0.1 percent of the 0.34 mW/cm^2 reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 21 (512-518 MHz), 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.