

TECHNICAL EXHIBIT
MINOR AMENDMENT TO PENDING APPLICATION
STATION KPXG-DT (FACILITY ID 5801)
SALEM, OREGON

NOVEMBER 26, 2002

CH 4 16 KW 490 M

TECHNICAL EXHIBIT
MINOR AMENDMENT TO PENDING APPLICATION
STATION KPXG-DT (FACILITY ID 5801)
SALEM, OREGON
CH 4 16 KW 490 M

Table of Contents

	Technical Narrative
Figure 1	Antenna and Supporting Structure
Figure 2	Vertical Antenna Pattern
Figure 3	Predicted F(50,90) Coverage Contours
Figure 4	Technical Specifications

TECHNICAL EXHIBIT
MINOR AMENDMENT TO PENDING APPLICATION
STATION KPXG-DT (FACILITY ID 5801)
SALEM, OREGON
CH 4 16 KW 490 M

Technical Narrative

This Technical Exhibit was prepared on behalf of digital television station KPXG-DT at Salem, Oregon, in support of a minor amendment application. Station KPXG-DT was allotted a non-directional antenna maximum effective radiated power (ERP) of 17 kW and an antenna height above average terrain (HAAT) of 455 meters on channel 4 (BPRM-20000503AAA, MM Docket No. 00-117).

This amendment proposes to change transmitter site, reduce ERP and increase HAAT from the pending application (BPCDT-20000427ABW).

Proposed Facilities

The proposed transmitter site is located 1.2 kilometers northwest of the current site (NAD 27 coordinates: 45-31-21 N, 122-44-45 W). The FCC antenna structure registration number is 1204059. The proposed facilities (16 kW, 490 m) comply with Section 73.622(f)(6)(i) of the FCC rules concerning maximum allowable ERP and antenna height for DTV stations.

AM station KUPL (970 kHz, Portland, OR) is the only AM station located within 5 kilometers of the proposed site. KUPL operates with 5 kilowatts day and night, utilizing a directional antenna during nighttime hours. The addition of the KPXG-DT antenna

on the existing tower with no change in overall height is not expected to impact station KUPL. However, the applicant recognizes its responsibility to correct problems that result from its proposed operation.

The proposed site is located 305 kilometers from the Canadian border. The proposed KPXG-DT operation (16 kW/490 m) qualifies as a Class VL operation towards Canada as defined in the Letter of Understanding (LOU). The proposed KPXG-DT Class VL operation is believed to be in compliance with the LOU as it meets the minimum separation requirements to all Canadian stations. Therefore, it is not believed that Canadian coordination is required; however if the FCC differs, coordination is respectfully requested.

The transmitter site is more than 1,500 kilometers from the Mexican border. The closest FCC monitoring station is at Ferndale, Washington, approximately 380 kilometers to the north. The closest point of the National Radio Quiet Zone (VA/WV) is more than 3,400 kilometers to the east. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 1,500 kilometers to the east. The closest radio astronomy site operating on TV channel 37 is at Brewster, WA, more than 370 kilometers to the northeast. These separations are sufficient to not be a concern for coordination purposes.

Allocation Considerations

Interference calculations have been made using the procedures outlined in the FCC's OET-69 bulletin, using a 2 kilometer grid spacing. Below is the list of stations considered in the OET-69 analysis.

Stations Potentially Affected by Proposed KPXG-DT					
Chan	Call	City/State	Dist (km)	Status	App. Ref. No.
03	KOAB-TV	BEND OR	195.4	LIC	BLET-19901019KG
04	KPIC	ROSEBURG OR	257.8	LIC	BMLCT-573
04	KOMO-TV	SEATTLE WA	236.4	APP	BPCT-19960624KO
04	KOMO-TV	SEATTLE WA	236.4	LIC	BLCT-2186

From the above list of stations considered, the table below shows the calculated interference caused to each station. Only stations that are predicted to receive interference from the proposed KPXG-DT operation are shown in the interference table.

Study Station			Baseline	Interference
04	KPIC	ROSEBURG OR (LIC)	127,345	2,312 (1.8%)
04	KOMO-TV	SEATTLE WA (APP)	3,125,254	17,025 (0.5%)
04	KOMO-TV	SEATTLE WA (LIC)	3,104,615	25,813 (0.8%)

The proposed KPXG-DT operation does not cause excessive (greater than 2%, up to 10% total) calculated interference to any analog or DTV assignment. Therefore, it is believed the proposal complies with the FCC's "de minimis" interference policy.

With respect to Class A TV station protection, the proposal has been evaluated according to the requirements of Section 73.613 of the FCC Rules. The analysis reveals no potential impact to any Class A stations.

Environmental Considerations

The proposed KPXG-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 237.1 meters above ground level. The proposed non-directional ERP is 16 kW. A conservative relative field value of 0.4 was assumed for the calculation (see Figure 2). Therefore, the "worst-case" calculated power density at a point 2 meters above ground level will be 0.0015 mW/cm². This is less than 1% of the FCC's recommended limit of 0.2 mW/cm² for channel 4 for an "uncontrolled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. As this will be a multi-user site, an agreement will control site access. In the event that workers or other authorized personnel enter restricted areas or climb the tower,

appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down. The proposed KPXG-DT operation appears to be otherwise categorically excluded from environmental processing.



Jonathan N. Edwards

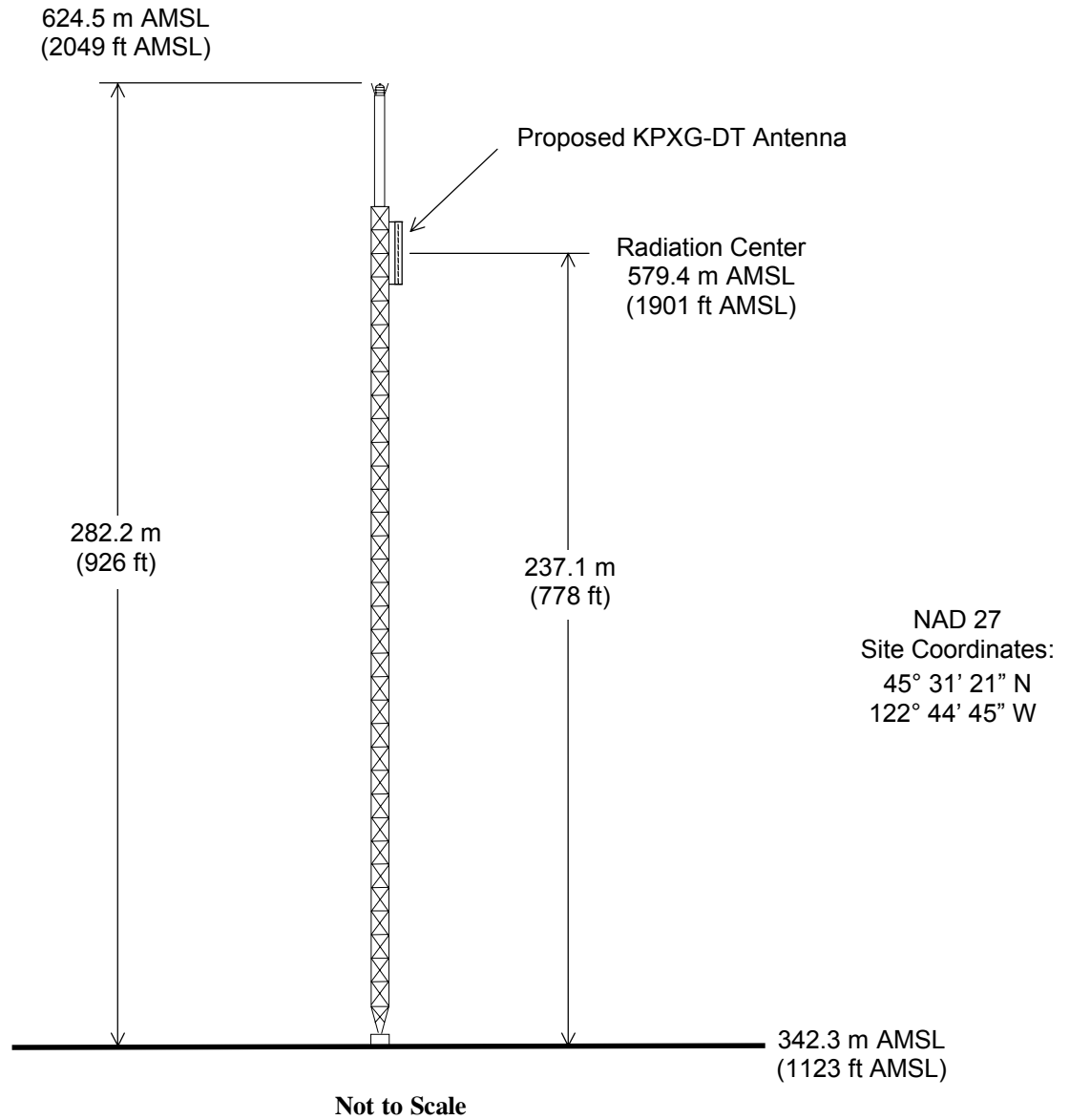
du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000

November 26, 2002

Figure 1



Registration No. 1204059



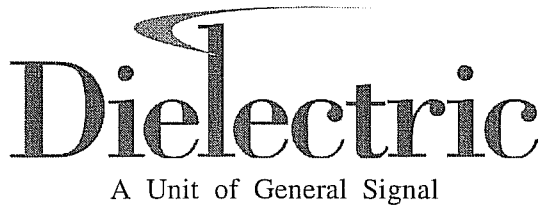
ANTENNA AND SUPPORTING STRUCTURE

STATION KPXG-DT

SALEM, OREGON

CH 4 16 KW 490 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida



Date
Call Letters
Location
Customer
Antenna Type

31 Mar 1999
KPXG-DT
Salem, OR
Paxson
THP-O-2-1

Channel 4

ELEVATION PATTERN

RMS Gain at Main Lobe
RMS Gain at Horizontal
Calculated / Measured

2.1 (3.22 dB)
2.1 (3.22 dB)
Calculated

Beam Tilt
Frequency
Drawing #

0.00 Degrees
69.00 MHz
02H02100-90

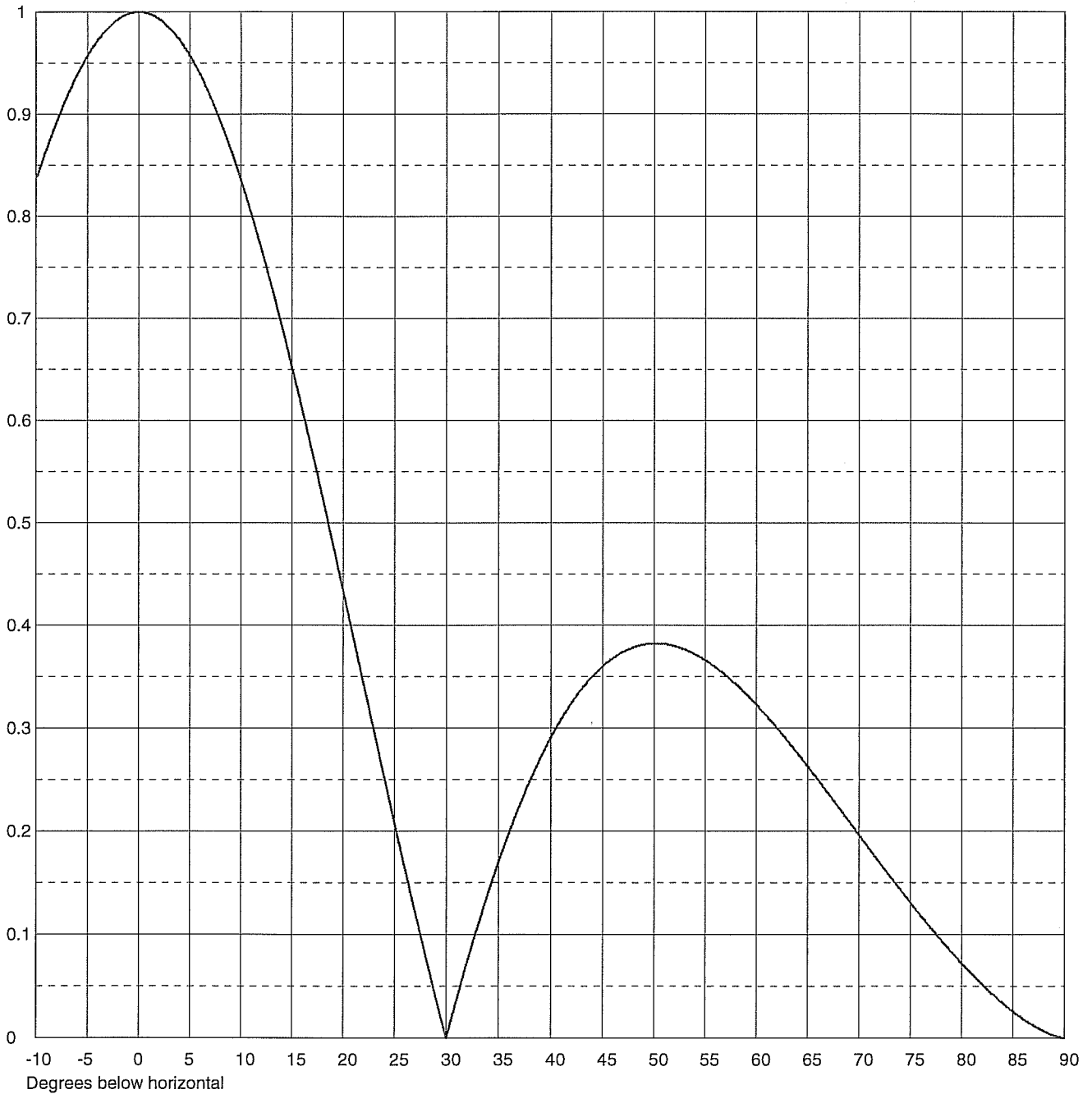
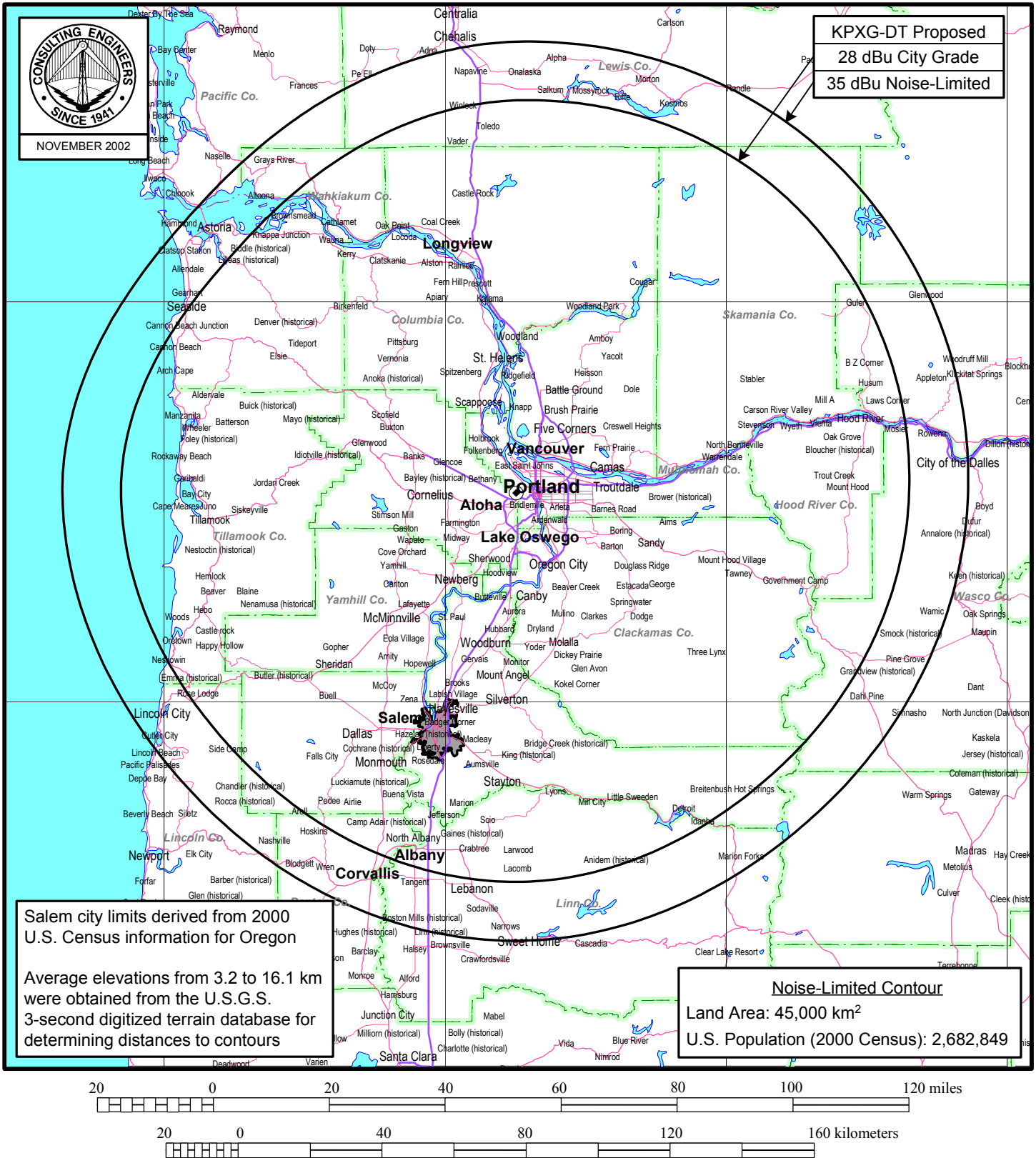


Figure 3



PREDICTED F(50,90) COVERAGE CONTOURS

STATION KPXG-DT

SALEM, OREGON

CH 4 16 KW 490 M

du Treil, Lundin & Rackley, Inc Sarasota, Florida

TECHNICAL EXHIBIT
 MINOR AMENDMENT TO PENDING APPLICATION
 STATION KPXG-DT (FACILITY ID 5801)
 SALEM, OREGON
 CH 4 16 KW 490 M

Technical Specifications

Channel	4
Frequency	66-72 MHz
Proposed Site Coordinates (NAD 27)	45° 30' 58" North Latitude 122° 43' 59" West Longitude
Site Elevation above mean sea level	342.3 m
Average elevation above mean sea level of 8 equally spaced radials, 3-16 kilometers	89.5 m
Overall height of antenna structure	
Above ground	282.2 m
Above mean sea level	624.5 m
Height of antenna radiation center	
Above ground	237.1 m
Above mean sea level	579.4 m
Above average terrain	490 m
DTV Transmitter	
Rated power output (average)	10 kW
Transmission line	Dielectric 562173
Nominal diameter	(3-1/8") 7.94 cm
Length	(850 ft) 259 m
Efficiency (0.677 dB loss)	85.6%
Antenna	Dielectric THP-O-2-1
Polarization	Horizontal
Power Gain	2.1
Beam Tilt	0°

Proposed Operation

Transmitter output power (average)	8.9 kW
Transmission line loss	1.3 kW
Antenna input power	7.6 kW
Effective Radiated Power	16.0 kW