

TECHNICAL SUMMARY
APPLICATION FOR CONSTRUCTION PERMIT
STATION KEUS-LD
SAN ANGELO, TEXAS
CHANNEL 21 15 KW (MAX-DA)

1. The instant application is a channel sharing application for KEUS-LD (Facility ID 48013, the “sharer”). The “sharee” station will be KANG-LP at San Angelo, Texas (Facility ID 48014) using KEUS-LD’s authorized digital channel 21 displacement facilities (LMS File No. 000030047). Specifically, KEUS-LD will operate on digital channel 21 with a directional antenna maximum effective radiated power (ERP) of 15 kW utilizing and a Dielectric model TLP-16M directional antenna having a main lobe orientation of 130 degrees true with an antenna center of radiation of 720.2 meters AMSL.

2. 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 140.8 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 (-60° to -90° elevation, see attached antenna information). The calculated power density at a point 2 meters above ground level is 1.0 uW/cm² which is 0.3% of the FCC’s recommended limit of 343.3 uW/cm² for channel 21 for an uncontrolled environment. Thus, as this is less than the 5% threshold value, it is believed that the KEUS-LD facility is in full compliance with the FCC’s requirements with regard to radio frequency radiation exposure.

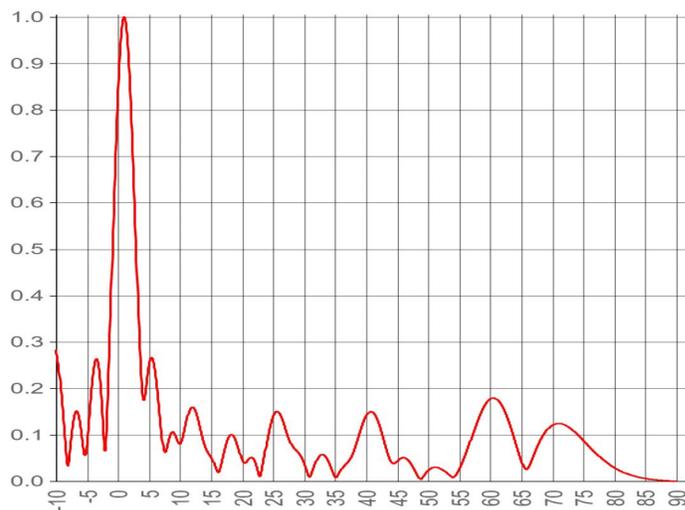
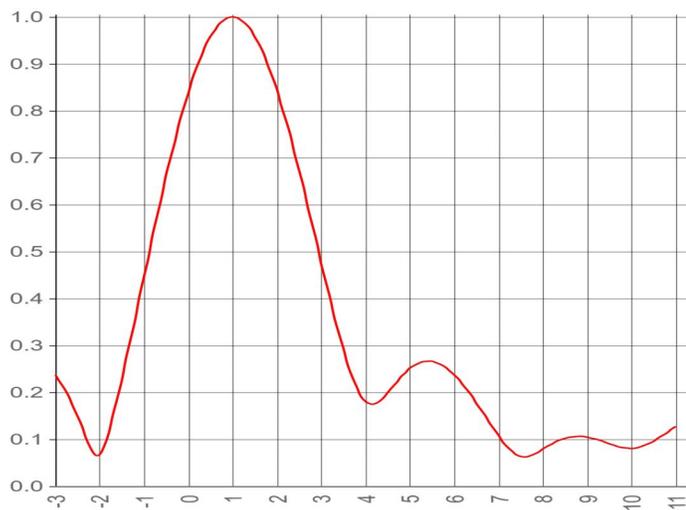
Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, a formal RFR protection protocol is in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measure will be 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.

ELEVATION PATTERN

Exhibit No.
 Date **19 Sep 2017**
 Call Letters
 Channel **21**
 Antenna Type **TLP-16M**
 Location
 Customer

RMS Gain at Main Lobe **16.0 (12.04 dB)**
 RMS Gain at Horizontal **11.3 (10.53 dB)**
Calculated

Beam Tilt **1 Degree**
 Drawing # **16L160100**



Degrees below horizontal

Degrees below horizontal

Angle	Field								
-10	0.283	10	0.080	30	0.039	50	0.023	70	0.120
-9	0.167	11	0.127	31	0.010	51	0.030	71	0.124
-8	0.036	12	0.159	32	0.044	52	0.027	72	0.121
-7	0.141	13	0.128	33	0.057	53	0.017	73	0.113
-6	0.119	14	0.077	34	0.040	54	0.008	74	0.101
-5	0.081	15	0.052	35	0.009	55	0.026	75	0.087
-4	0.233	16	0.021	36	0.025	56	0.057	76	0.074
-3	0.237	17	0.057	37	0.041	57	0.094	77	0.060
-2	0.066	18	0.098	38	0.064	58	0.131	78	0.048
-1	0.446	19	0.088	39	0.105	59	0.161	79	0.038
0	0.840	20	0.046	40	0.140	60	0.177	80	0.029
1	1.000	21	0.047	41	0.149	61	0.177	81	0.022
2	0.844	22	0.045	42	0.125	62	0.159	82	0.016
3	0.476	23	0.012	43	0.081	63	0.128	83	0.012
4	0.180	24	0.084	44	0.043	64	0.087	84	0.008
5	0.251	25	0.140	45	0.043	65	0.044	85	0.006
6	0.237	26	0.147	46	0.051	66	0.027	86	0.004
7	0.107	27	0.113	47	0.042	67	0.056	87	0.002
8	0.079	28	0.078	48	0.020	68	0.086	88	0.001
9	0.104	29	0.062	49	0.007	69	0.108	89	0.000

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