

Horizontal Polarization AZIMUTH PATTERN

Exhibit No.

8 Nov 2018

Call Letters KXTU

Channel 20

Antenna Type DLP-8J

Location Colorado Springs, CO

Customer

Gain

2.0 (3.01 dB)

Calculated

Drawing #

j-pattern_ch30

Deg	Value																						
0	0.984	36	0.851	72	0.563	108	0.606	144	0.938	180	0.931	216	0.480	252	0.351	288	0.278	324	0.639				
1	0.988	37	0.841	73	0.560	109	0.612	145	0.945	181	0.924	217	0.464	253	0.358	289	0.272	325	0.654				
2	0.990	38	0.830	74	0.558	110	0.619	146	0.951	182	0.916	218	0.448	254	0.365	290	0.268	326	0.668				
3	0.993	39	0.820	75	0.556	111	0.626	147	0.958	183	0.909	219	0.432	255	0.371	291	0.263	327	0.683				
4	0.995	40	0.810	76	0.554	112	0.633	148	0.963	184	0.900	220	0.416	256	0.376	292	0.261	328	0.697				
5	0.997	41	0.799	77	0.553	113	0.641	149	0.969	185	0.892	221	0.401	257	0.382	293	0.259	329	0.711				
6	0.998	42	0.788	78	0.552	114	0.649	150	0.973	186	0.883	222	0.386	258	0.386	294	0.260	330	0.725				
7	0.999	43	0.778	79	0.551	115	0.658	151	0.978	187	0.874	223	0.371	259	0.391	295	0.260	331	0.738				
8	1.000	44	0.767	80	0.550	116	0.667	152	0.982	188	0.864	224	0.357	260	0.394	296	0.263	332	0.751				
9	1.000	45	0.756	81	0.549	117	0.676	153	0.986	189	0.854	225	0.343	261	0.397	297	0.267	333	0.764				
10	1.000	46	0.746	82	0.549	118	0.685	154	0.989	190	0.844	226	0.330	262	0.399	298	0.273	334	0.776				
11	0.999	47	0.735	83	0.548	119	0.695	155	0.992	191	0.834	227	0.318	263	0.401	299	0.279	335	0.788				
12	0.998	48	0.725	84	0.548	120	0.705	156	0.994	192	0.823	228	0.307	264	0.401	300	0.287	336	0.800				
13	0.996	49	0.715	85	0.548	121	0.715	157	0.996	193	0.812	229	0.296	265	0.402	301	0.296	337	0.812				
14	0.994	50	0.705	86	0.548	122	0.725	158	0.998	194	0.800	230	0.287	266	0.401	302	0.307	338	0.823				
15	0.992	51	0.695	87	0.548	123	0.735	159	0.999	195	0.788	231	0.279	267	0.401	303	0.318	339	0.834				
16	0.989	52	0.685	88	0.549	124	0.746	160	1.000	196	0.776	232	0.273	268	0.399	304	0.330	340	0.844				
17	0.986	53	0.676	89	0.549	125	0.756	161	1.000	197	0.764	233	0.267	269	0.397	305	0.343	341	0.854				
18	0.982	54	0.667	90	0.550	126	0.767	162	1.000	198	0.751	234	0.263	270	0.394	306	0.357	342	0.864				
19	0.978	55	0.658	91	0.551	127	0.778	163	0.999	199	0.738	235	0.260	271	0.391	307	0.371	343	0.874				
20	0.973	56	0.649	92	0.552	128	0.788	164	0.998	200	0.725	236	0.260	272	0.386	308	0.386	344	0.883				
21	0.969	57	0.641	93	0.553	129	0.799	165	0.997	201	0.711	237	0.259	273	0.382	309	0.401	345	0.892				
22	0.963	58	0.633	94	0.554	130	0.810	166	0.995	202	0.697	238	0.261	274	0.376	310	0.416	346	0.900				
23	0.958	59	0.626	95	0.556	131	0.820	167	0.993	203	0.683	239	0.263	275	0.371	311	0.432	347	0.909				
24	0.951	60	0.619	96	0.558	132	0.830	168	0.990	204	0.668	240	0.268	276	0.365	312	0.448	348	0.916				
25	0.945	61	0.612	97	0.560	133	0.841	169	0.988	205	0.654	241	0.272	277	0.358	313	0.464	349	0.924				
26	0.938	62	0.606	98	0.563	134	0.851	170	0.984	206	0.639	242	0.278	278	0.351	314	0.480	350	0.931				
27	0.931	63	0.599	99	0.565	135	0.861	171	0.981	207	0.624	243	0.284	279	0.344	315	0.496	351	0.938				
28	0.923	64	0.594	100	0.568	136	0.870	172	0.976	208	0.608	244	0.291	280	0.337	316	0.513	352	0.944				
29	0.915	65	0.589	101	0.572	137	0.880	173	0.972	209	0.593	245	0.298	281	0.329	317	0.529	353	0.951				
30	0.907	66	0.584	102	0.576	138	0.889	174	0.967	210	0.577	246	0.306	282	0.321	318	0.545	354	0.956				
31	0.898	67	0.579	103	0.579	139	0.898	175	0.962	211	0.561	247	0.313	283	0.313	319	0.561	355	0.962				
32	0.889	68	0.576	104	0.584	140	0.907	176	0.956	212	0.545	248	0.321	284	0.306	320	0.577	356	0.967				
33	0.880	69	0.572	105	0.589	141	0.915	177	0.951	213	0.529	249	0.329	285	0.298	321	0.593	357	0.972				
34	0.870	70	0.568	106	0.594	142	0.923	178	0.944	214	0.513	250	0.337	286	0.291	322	0.608	358	0.976				
35	0.861	71	0.565	107	0.599	143	0.931	179	0.938	215	0.496	251	0.344	287	0.284	323	0.624	359	0.981				

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ELEVATION PATTERN

Exhibit No.

Date **8 Nov 2018**Call Letters **KXTU**Channel **20**Antenna Type **DLP-8J**Location **Colorado Springs, CO**

Customer

RMS Gain at Main Lobe

8.0 (9.03 dB)

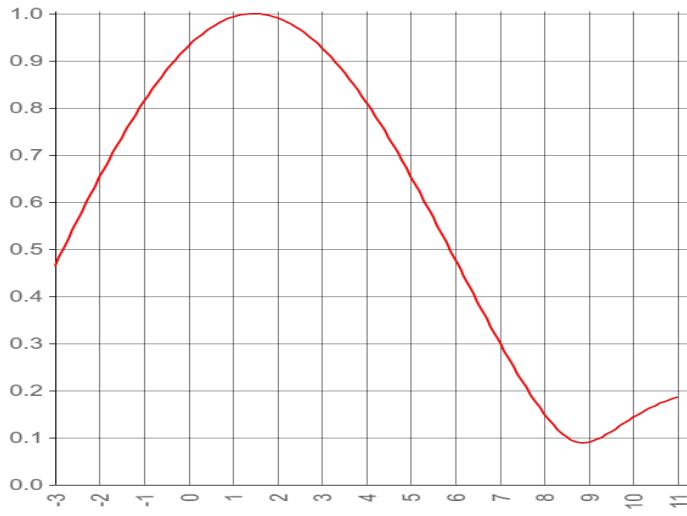
Beam Tilt

1.5 Degrees

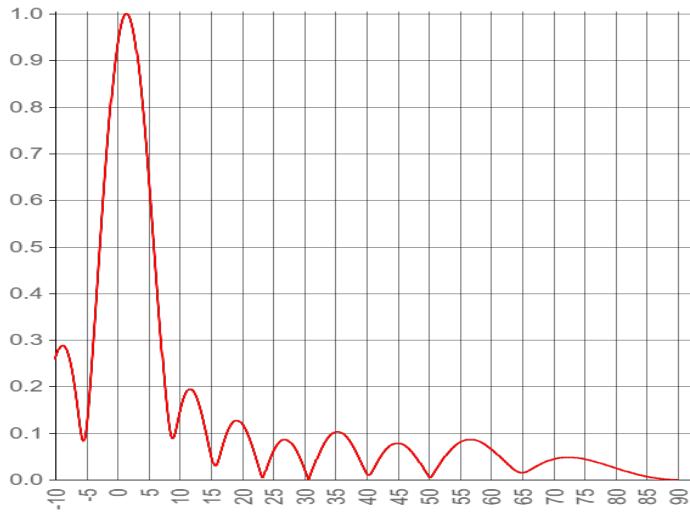
RMS Gain at Horizontal

6.9 (8.42 dB)

Drawing #

Calculated

Degrees below horizontal



Degrees below horizontal

Angle	Field								
-10	0.258	10	0.143	30	0.025	50	0.007	70	0.044
-9	0.287	11	0.186	31	0.010	51	0.018	71	0.047
-8	0.273	12	0.193	32	0.044	52	0.038	72	0.048
-7	0.213	13	0.166	33	0.073	53	0.056	73	0.048
-6	0.117	14	0.115	34	0.093	54	0.070	74	0.047
-5	0.111	15	0.056	35	0.102	55	0.080	75	0.044
-4	0.271	16	0.034	36	0.101	56	0.085	76	0.041
-3	0.464	17	0.078	37	0.088	57	0.086	77	0.038
-2	0.652	18	0.112	38	0.068	58	0.083	78	0.034
-1	0.814	19	0.127	39	0.041	59	0.076	79	0.029
0	0.932	20	0.120	40	0.015	60	0.066	80	0.025
1	0.993	21	0.095	41	0.020	61	0.055	81	0.021
2	0.991	22	0.058	42	0.044	62	0.042	82	0.017
3	0.928	23	0.015	43	0.063	63	0.030	83	0.013
4	0.811	24	0.027	44	0.074	64	0.019	84	0.010
5	0.655	25	0.060	45	0.078	65	0.015	85	0.007
6	0.478	26	0.080	46	0.075	66	0.019	86	0.004
7	0.301	27	0.086	47	0.064	67	0.027	87	0.003
8	0.150	28	0.077	48	0.048	68	0.034	88	0.001
9	0.090	29	0.055	49	0.028	69	0.040	89	0.000

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