

TECHNICAL EXHIBIT
APPLICATION FOR WEST ORANGE AUXILIARY STATION
TELEVISION STATION WPXN-DT (FACILITY ID 73356)
NEW YORK, NEW YORK
CH 30 725 KW (MAX-DA) 223 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared on behalf of television station WPXN-DT assigned to New York, New York in support of an application for a new digital auxiliary facility. The WPXN-DT main facility is the presently authorized facility located at the former World Trade Center (FCC File Number: BPCDT-19991028ACH). This proposed auxiliary facility will be located at the *West Orange* tower.

Transmitter Location

The herein proposed auxiliary facility will utilize a Dielectric TUD-C5SP-10/34U-2-B antenna mounted on an existing tower. The proposed antenna is located at the 98.5 meter (323 foot) level (see Figure 1). The Appendix contains the manufacturer's directional antenna information.

Coverage Contours

The predicted 41 dBu noise-limited coverage contours for the auxiliary operation and the authorized main operation were calculated in accordance with the provisions of Section 73.313. In accordance with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors.

The average terrain elevations from 3 to 16 kilometers along eight radials evenly spaced at 45 degree intervals were obtained from the National Geophysical Data Center's (NGDC) 30-second terrain database. The terrain elevations were then used in combination with the effective radiated power for determining the distances to coverage contours.

Figure 2 is a map showing the predicted 41 dBu coverage contours for the authorized main and proposed auxiliary operations. As the map illustrates, the predicted auxiliary's 41-dBu contour is entirely encompassed by the primary station's 41-dBu contour.

Radiofrequency Electromagnetic Field Exposure

The proposed facility has been evaluated in terms of potential radiofrequency electromagnetic fields at ground level in accordance with OET Bulletin No. 65, Evaluating Compliance with FCC Specified Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields. The proposed calculated power density at the base of the tower was calculated using the appropriate equation contained on page 30 in Supplement A, Additional Information for Radio and Television Broadcast Stations, of the Bulletin.

For the calculation, a downward relative field value of 0.2 was assumed for the transmitting antenna. Therefore, using a maximum average effective radiated power of 725 kilowatts and a relative field value of 0.2, the predicted power density at ground level located 98.5 meters (323 feet) below the antenna radiation center is 0.10 mW/cm^2 . This is 26% percent of the Commission's guideline in an uncontrolled environment for a Channel 30 television station. WPXN-DT would be the only authorized facility at this site.

Access to the transmitting site is restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shutdown of power if necessary, shall be taken to ensure that the human exposure to radiofrequency electromagnetic fields will not exceed the FCC guidelines.

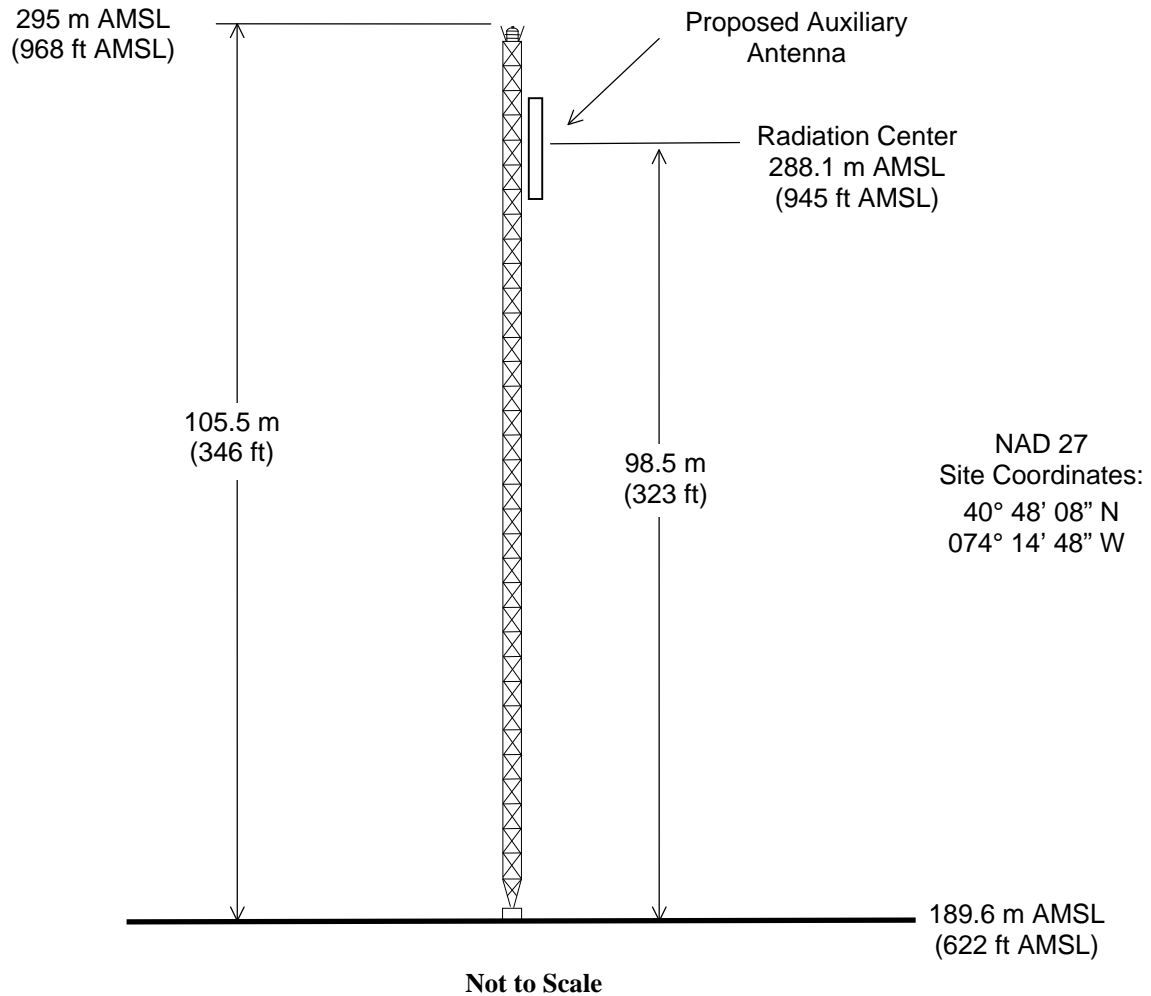
Charles A. Cooper

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
941.329.6000

October 8, 2007



FCC Tower Registration Number
1060205



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

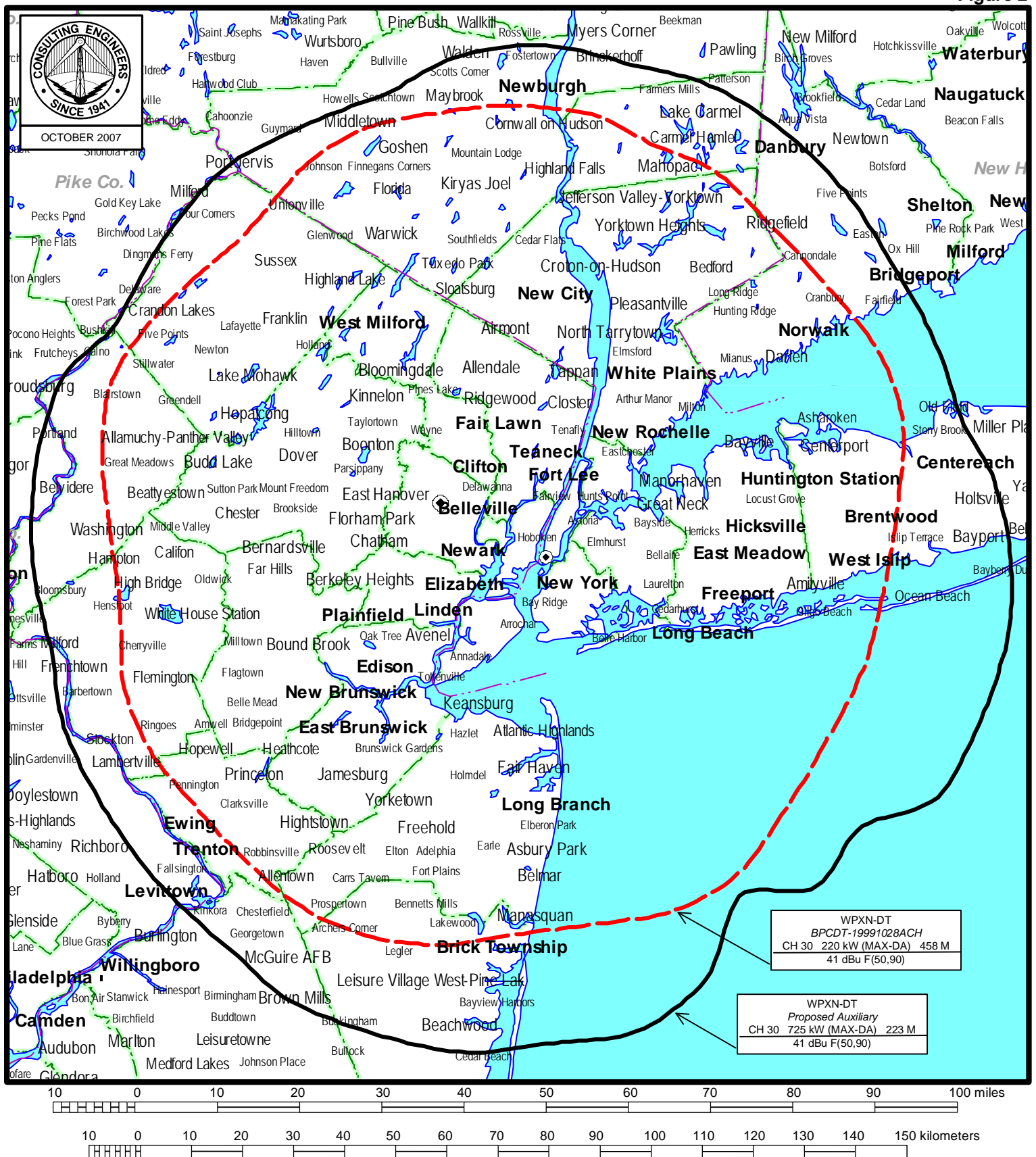
TELEVISION STATION WPXN-DT (FACILITY ID 73356)

NEW YORK, NEW YORK

CH 30 725 KW (MAX-DA) 223 M

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

Figure 2



FCC PREDICTED NOISE-LIMITED COVERAGE CONTOURS

TELEVISION STATION WPNX-DT (FACILITY ID 73356)
NEW YORK, NEW YORK
CH 30 725 kW (MAX-DA) 223 M

APPENDIX

MANUFACTURER DIRECTIONAL ANTENNA SPECIFICATIONS

Proposal Number

Date

3-Oct-07

Call Letters

Channel

30

Location

Linden, NJ

Customer

Richland

Antenna Type

TUD-C5SP-10/34U-2-B

AZIMUTH PATTERN

Gain

2.43

(3.86 dB)

Frequency

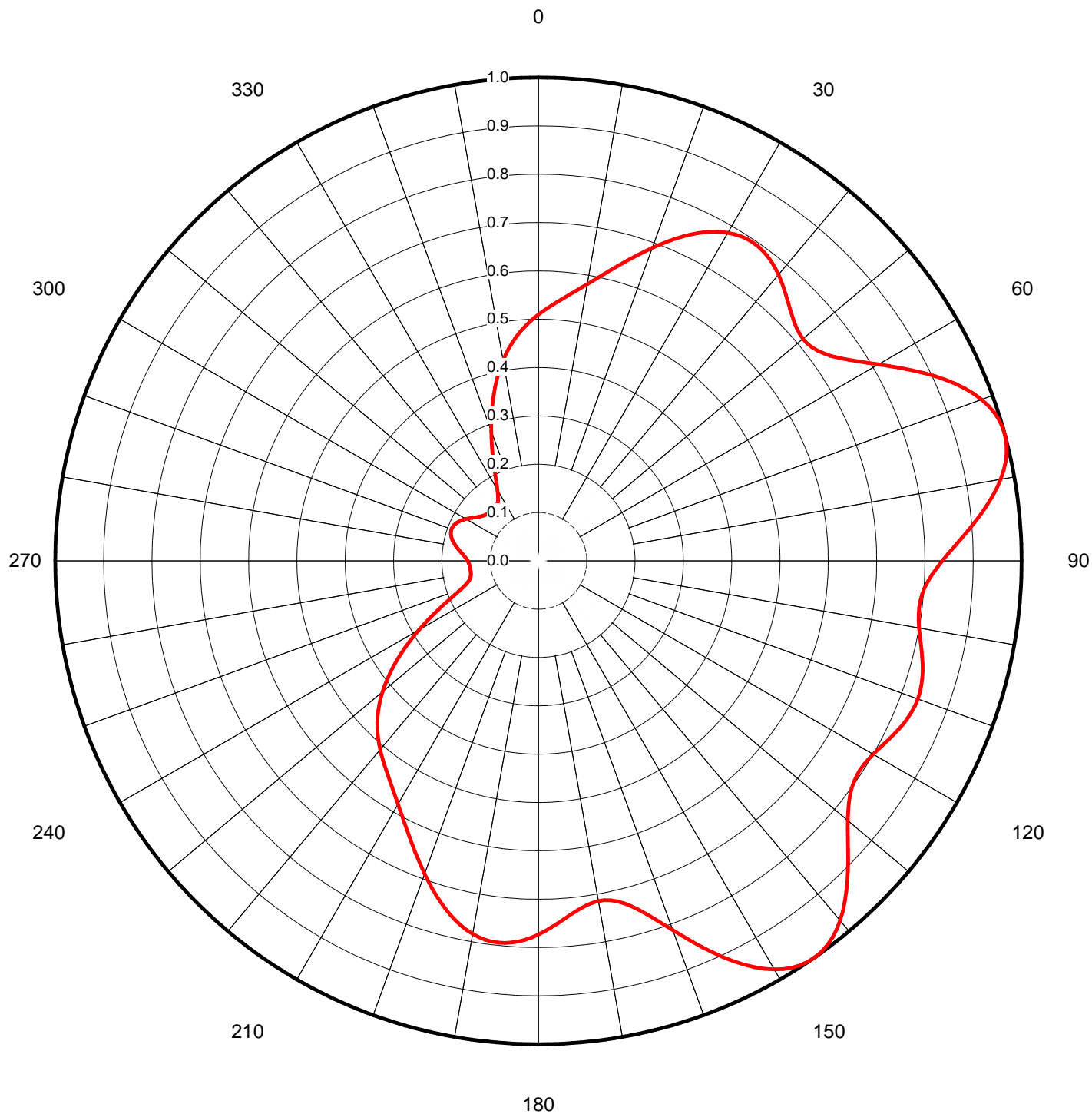
569.00 MHz

Calculated / Measured

Calculated

Drawing #

TUD-C5SP-5690





Proposal Number

Date

3-Oct-07

Call Letters

Channel

30

Location

Linden, NJ

Customer

Richland

Antenna Type

TUD-C5SP-10/34U-2-B

TABULATION OF AZIMUTH PATTERNAzimuth Pattern Drawing #: **TUD-C5SP-5690**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.510	45	0.736	90	0.836	135	0.906	180	0.773	225	0.472	270	0.147	315	0.142
1	0.516	46	0.730	91	0.825	136	0.920	181	0.779	226	0.463	271	0.148	316	0.142
2	0.523	47	0.724	92	0.815	137	0.935	182	0.784	227	0.453	272	0.150	317	0.142
3	0.529	48	0.719	93	0.807	138	0.948	183	0.789	228	0.443	273	0.152	318	0.142
4	0.536	49	0.716	94	0.801	139	0.960	184	0.792	229	0.432	274	0.155	319	0.142
5	0.543	50	0.715	95	0.797	140	0.971	185	0.794	230	0.421	275	0.157	320	0.142
6	0.550	51	0.715	96	0.795	141	0.981	186	0.794	231	0.409	276	0.160	321	0.142
7	0.557	52	0.718	97	0.794	142	0.989	187	0.793	232	0.397	277	0.164	322	0.143
8	0.565	53	0.723	98	0.795	143	0.994	188	0.791	233	0.384	278	0.167	323	0.144
9	0.573	54	0.730	99	0.797	144	0.998	189	0.788	234	0.371	279	0.170	324	0.145
10	0.581	55	0.739	100	0.800	145	1.000	190	0.784	235	0.357	280	0.173	325	0.147
11	0.590	56	0.751	101	0.804	146	1.000	191	0.778	236	0.343	281	0.176	326	0.150
12	0.600	57	0.764	102	0.809	147	0.997	192	0.771	237	0.329	282	0.179	327	0.153
13	0.610	58	0.779	103	0.814	148	0.992	193	0.763	238	0.314	283	0.182	328	0.158
14	0.620	59	0.795	104	0.819	149	0.985	194	0.754	239	0.300	284	0.184	329	0.163
15	0.631	60	0.813	105	0.823	150	0.976	195	0.745	240	0.286	285	0.186	330	0.170
16	0.642	61	0.831	106	0.827	151	0.965	196	0.735	241	0.271	286	0.188	331	0.177
17	0.654	62	0.850	107	0.831	152	0.952	197	0.724	242	0.257	287	0.190	332	0.186
18	0.665	63	0.868	108	0.833	153	0.938	198	0.712	243	0.244	288	0.191	333	0.196
19	0.677	64	0.887	109	0.835	154	0.922	199	0.701	244	0.231	289	0.191	334	0.207
20	0.689	65	0.905	110	0.835	155	0.905	200	0.689	245	0.218	290	0.192	335	0.218
21	0.701	66	0.922	111	0.835	156	0.887	201	0.677	246	0.207	291	0.191	336	0.231
22	0.712	67	0.938	112	0.833	157	0.868	202	0.665	247	0.196	292	0.191	337	0.244
23	0.724	68	0.952	113	0.831	158	0.850	203	0.654	248	0.186	293	0.190	338	0.257
24	0.735	69	0.965	114	0.827	159	0.831	204	0.642	249	0.177	294	0.188	339	0.271
25	0.745	70	0.976	115	0.823	160	0.813	205	0.631	250	0.170	295	0.186	340	0.286
26	0.754	71	0.985	116	0.819	161	0.795	206	0.620	251	0.163	296	0.184	341	0.300
27	0.763	72	0.992	117	0.814	162	0.779	207	0.610	252	0.158	297	0.182	342	0.314
28	0.771	73	0.997	118	0.809	163	0.764	208	0.600	253	0.153	298	0.179	343	0.329
29	0.778	74	1.000	119	0.804	164	0.751	209	0.590	254	0.150	299	0.176	344	0.343
30	0.784	75	1.000	120	0.800	165	0.739	210	0.581	255	0.147	300	0.173	345	0.357
31	0.788	76	0.998	121	0.797	166	0.730	211	0.573	256	0.145	301	0.170	346	0.371
32	0.791	77	0.994	122	0.795	167	0.723	212	0.565	257	0.144	302	0.167	347	0.384
33	0.793	78	0.989	123	0.794	168	0.718	213	0.557	258	0.143	303	0.164	348	0.397
34	0.794	79	0.981	124	0.795	169	0.715	214	0.550	259	0.142	304	0.160	349	0.409
35	0.794	80	0.971	125	0.797	170	0.715	215	0.543	260	0.142	305	0.157	350	0.421
36	0.792	81	0.960	126	0.801	171	0.716	216	0.536	261	0.142	306	0.155	351	0.432
37	0.789	82	0.948	127	0.807	172	0.719	217	0.529	262	0.142	307	0.152	352	0.443
38	0.784	83	0.935	128	0.815	173	0.724	218	0.523	263	0.142	308	0.150	353	0.453
39	0.779	84	0.920	129	0.825	174	0.730	219	0.516	264	0.142	309	0.148	354	0.463
40	0.773	85	0.906	130	0.836	175	0.736	220	0.510	265	0.142	310	0.147	355	0.472
41	0.766	86	0.891	131	0.848	176	0.744	221	0.503	266	0.143	311	0.145	356	0.480
42	0.759	87	0.876	132	0.862	177	0.751	222	0.496	267	0.143	312	0.144	357	0.488
43	0.751	88	0.862	133	0.876	178	0.759	223	0.488	268	0.144	313	0.143	358	0.496
44	0.744	89	0.848	134	0.891	179	0.766	224	0.480	269	0.145	314	0.143	359	0.503



Proposal Number

Date

3-Oct-07

Call Letters

Channel **30**

Location

Linden, NJ

Customer

Richland

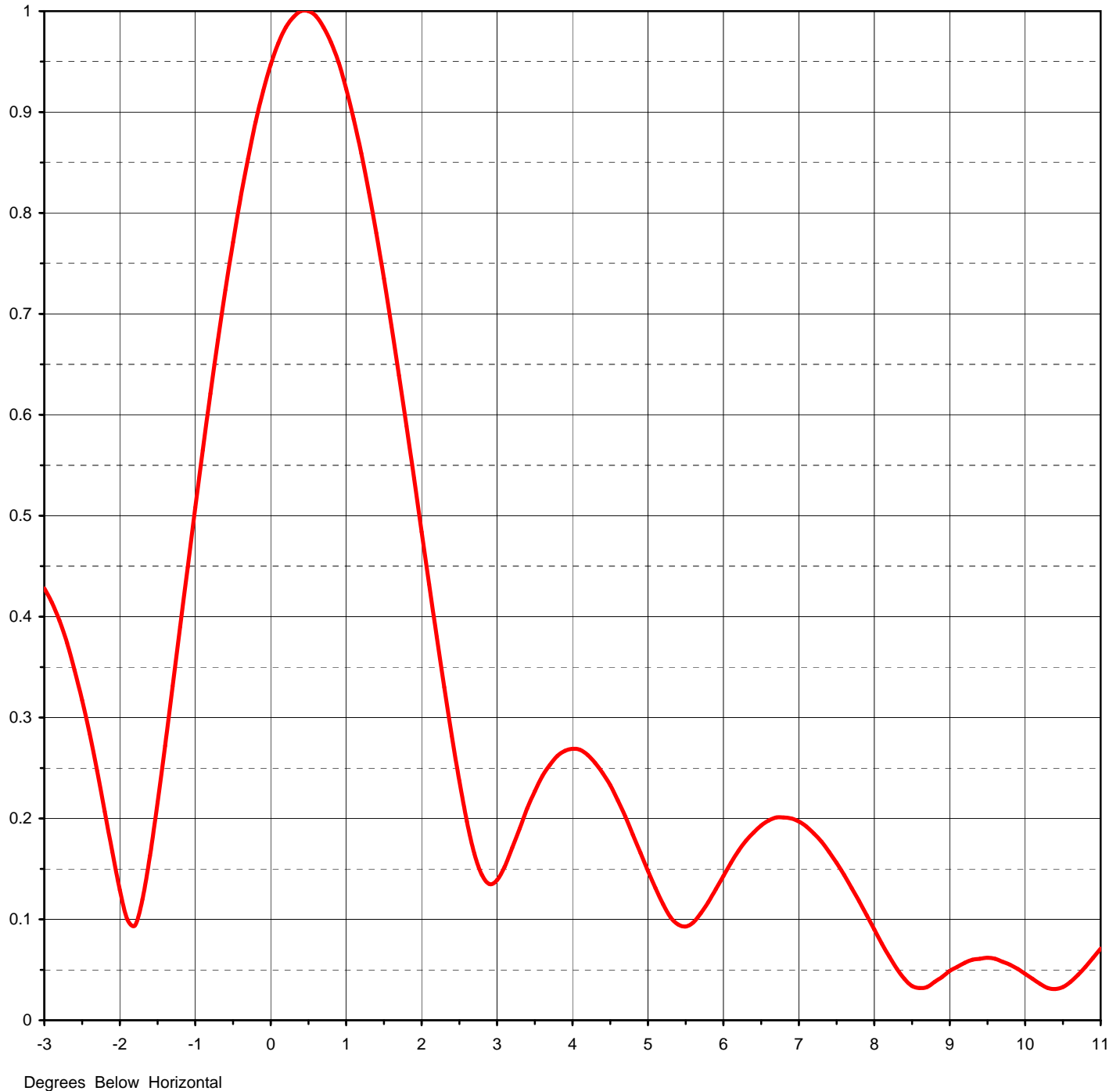
Antenna Type

TUD-C5SP-10/34U-2-B

ELEVATION PATTERN

RMS Gain at Main Lobe **18.40 (12.65 dB)**
RMS Gain at Horizontal **16.50 (12.17 dB)**
Calculated / Measured **Calculated**

Beam Tilt **0.50 deg**
Frequency **569.00 MHz**
Drawing # **10U202050**



ELEVATION PATTERN

RMS Gain at Main Lobe **18.40 (12.65 dB)**

Beam Tilt **0.50 deg**

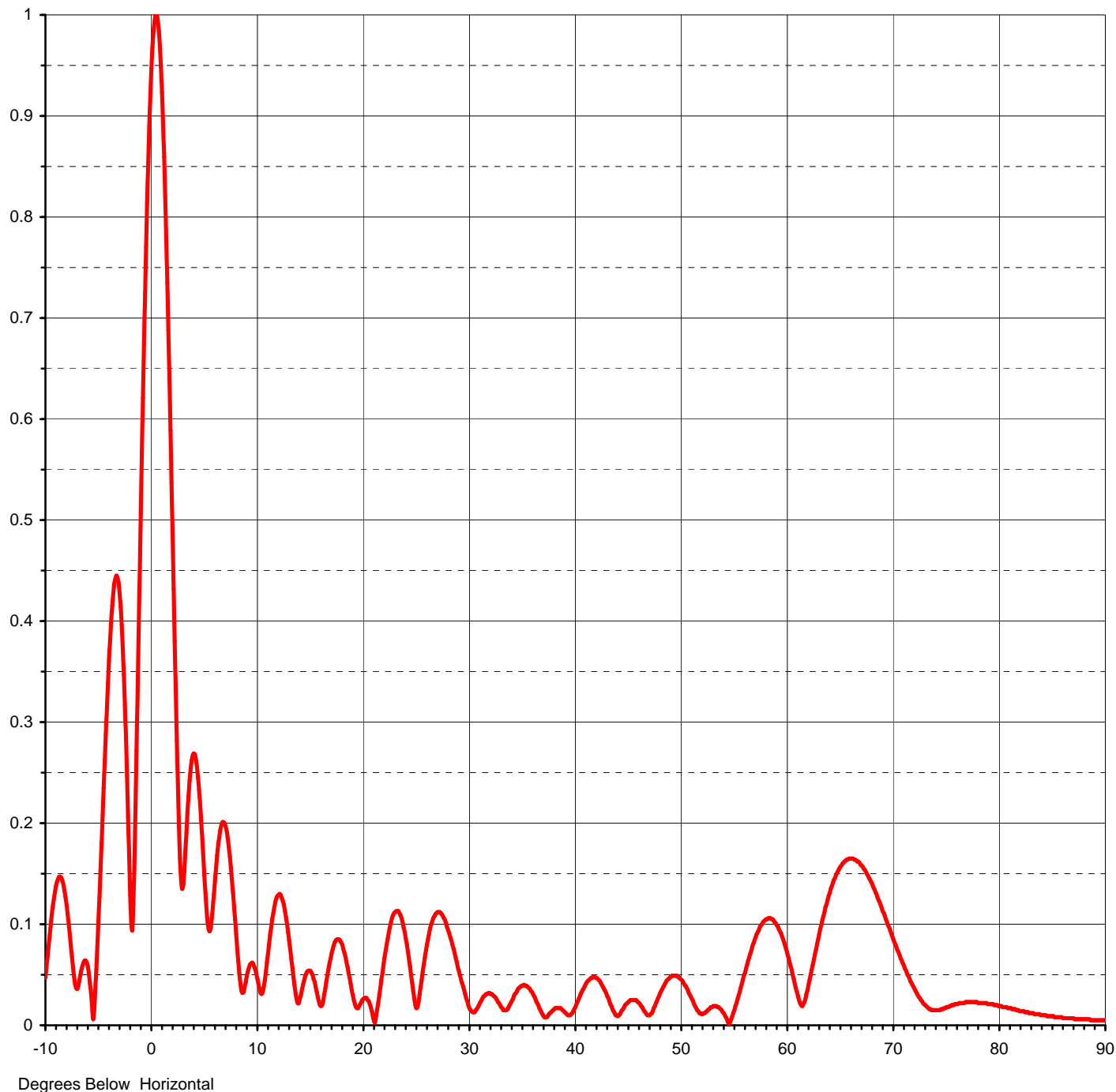
RMS Gain at Horizontal **16.50 (12.17 dB)**

Frequency **569.00 MHz**

Calculated / Measured **Calculated**

Drawing #

10U202050-90





Proposal Number

Date **3-Oct-07**

Call Letters

Channel **30**Location **Linden, NJ**Customer **Richland**Antenna Type **TUD-C5SP-10/34U-2-B**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **10U202050-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.047	2.4	0.282	10.6	0.033	30.5	0.013	51.0	0.028	71.5	0.047
-9.5	0.099	2.6	0.197	10.8	0.045	31.0	0.020	51.5	0.017	72.0	0.036
-9.0	0.138	2.8	0.144	11.0	0.062	31.5	0.029	52.0	0.011	72.5	0.027
-8.5	0.146	3.0	0.139	11.5	0.105	32.0	0.032	52.5	0.014	73.0	0.020
-8.0	0.119	3.2	0.171	12.0	0.128	32.5	0.028	53.0	0.018	73.5	0.016
-7.5	0.068	3.4	0.210	12.5	0.123	33.0	0.020	53.5	0.018	74.0	0.015
-7.0	0.036	3.6	0.242	13.0	0.092	33.5	0.015	54.0	0.013	74.5	0.016
-6.5	0.059	3.8	0.262	13.5	0.048	34.0	0.022	54.5	0.003	75.0	0.018
-6.0	0.058	4.0	0.269	14.0	0.022	34.5	0.032	55.0	0.012	75.5	0.020
-5.5	0.006	4.2	0.263	14.5	0.044	35.0	0.039	55.5	0.029	76.0	0.021
-5.0	0.102	4.4	0.245	15.0	0.054	35.5	0.039	56.0	0.049	76.5	0.022
-4.5	0.235	4.6	0.218	15.5	0.043	36.0	0.033	56.5	0.067	77.0	0.023
-4.0	0.361	4.8	0.184	16.0	0.020	36.5	0.022	57.0	0.084	77.5	0.023
-3.5	0.437	5.0	0.148	16.5	0.036	37.0	0.011	57.5	0.097	78.0	0.022
-3.0	0.428	5.2	0.115	17.0	0.066	37.5	0.009	58.0	0.104	78.5	0.022
-2.8	0.396	5.4	0.095	17.5	0.084	38.0	0.015	58.5	0.106	79.0	0.021
-2.6	0.347	5.6	0.097	18.0	0.082	38.5	0.017	59.0	0.101	79.5	0.020
-2.4	0.284	5.8	0.117	18.5	0.063	39.0	0.014	59.5	0.091	80.0	0.019
-2.2	0.207	6.0	0.143	19.0	0.035	39.5	0.010	60.0	0.075	80.5	0.018
-2.0	0.129	6.2	0.168	19.5	0.017	40.0	0.016	60.5	0.055	81.0	0.017
-1.8	0.094	6.4	0.186	20.0	0.025	40.5	0.028	61.0	0.033	81.5	0.016
-1.6	0.163	6.6	0.198	20.5	0.025	41.0	0.039	61.5	0.019	82.0	0.014
-1.4	0.272	6.8	0.201	21.0	0.009	41.5	0.046	62.0	0.035	82.5	0.013
-1.2	0.390	7.0	0.197	21.5	0.022	42.0	0.047	62.5	0.060	83.0	0.012
-1.0	0.508	7.2	0.185	22.0	0.060	42.5	0.042	63.0	0.085	83.5	0.011
-0.8	0.621	7.4	0.167	22.5	0.092	43.0	0.032	63.5	0.108	84.0	0.010
-0.6	0.724	7.6	0.144	23.0	0.111	43.5	0.019	64.0	0.128	84.5	0.009
-0.4	0.815	7.8	0.118	23.5	0.111	44.0	0.010	64.5	0.146	85.0	0.009
-0.2	0.890	8.0	0.090	24.0	0.092	44.5	0.015	65.0	0.157	85.5	0.008
0.0	0.947	8.2	0.063	24.5	0.058	45.0	0.022	65.5	0.163	86.0	0.007
0.2	0.984	8.4	0.041	25.0	0.020	45.5	0.025	66.0	0.165	86.5	0.007
0.4	1.000	8.6	0.032	25.5	0.038	46.0	0.023	66.5	0.163	87.0	0.007
0.6	0.995	8.8	0.038	26.0	0.074	46.5	0.016	67.0	0.158	87.5	0.006
0.8	0.969	9.0	0.049	26.5	0.100	47.0	0.010	67.5	0.150	88.0	0.006
1.0	0.923	9.2	0.057	27.0	0.111	47.5	0.017	68.0	0.140	88.5	0.006
1.2	0.859	9.4	0.061	27.5	0.110	48.0	0.029	68.5	0.127	89.0	0.005
1.4	0.780	9.6	0.061	28.0	0.097	48.5	0.040	69.0	0.113	89.5	0.005
1.6	0.688	9.8	0.058	28.5	0.080	49.0	0.047	69.5	0.099	90.0	0.005
1.8	0.589	10.0	0.051	29.0	0.058	49.5	0.049	70.0	0.085		
2.0	0.484	10.2	0.041	29.5	0.039	50.0	0.046	70.5	0.072		
2.2	0.380	10.4	0.032	30.0	0.020	50.5	0.039	71.0	0.059		