

AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70753**
 Date **10-May-17**
 Call Letters **WNIT**
 Channel **31**
 Frequency **575 MHz**
 Antenna Type **TUA-04-14/56H-1-T**
 Gain **1.31 (1.18dB)**
 Circularity **Calculated
+/- 2.0 dB**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.997	36	0.861	72	0.820	108	0.847	144	0.813	180	0.997	216	0.861	252	0.820	288	0.847
1	0.997	37	0.877	73	0.838	109	0.831	145	0.795	181	0.997	217	0.877	253	0.838	289	0.831
2	0.998	38	0.891	74	0.858	110	0.818	146	0.778	182	0.998	218	0.891	254	0.858	290	0.818
3	0.999	39	0.903	75	0.878	111	0.802	147	0.761	183	0.999	219	0.903	255	0.878	291	0.802
4	0.999	40	0.913	76	0.893	112	0.788	148	0.746	184	0.999	220	0.913	256	0.893	292	0.788
5	1.000	41	0.922	77	0.909	113	0.777	149	0.733	185	1.000	221	0.922	257	0.909	293	0.777
6	0.995	42	0.928	78	0.924	114	0.768	150	0.724	186	0.995	222	0.928	258	0.924	294	0.768
7	0.990	43	0.932	79	0.940	115	0.762	151	0.716	187	0.990	223	0.932	259	0.940	295	0.762
8	0.986	44	0.932	80	0.955	116	0.758	152	0.712	188	0.986	224	0.932	260	0.955	296	0.758
9	0.982	45	0.929	81	0.961	117	0.758	153	0.711	189	0.982	225	0.929	261	0.961	297	0.758
10	0.979	46	0.925	82	0.968	118	0.760	154	0.714	190	0.979	226	0.925	262	0.968	298	0.760
11	0.963	47	0.918	83	0.976	119	0.766	155	0.721	191	0.963	227	0.918	263	0.976	299	0.766
12	0.947	48	0.908	84	0.983	120	0.774	156	0.729	192	0.947	228	0.908	264	0.983	300	0.774
13	0.931	49	0.895	85	0.990	121	0.785	157	0.739	193	0.931	229	0.895	265	0.990	301	0.785
14	0.916	50	0.881	86	0.991	122	0.799	158	0.753	194	0.916	230	0.881	266	0.991	302	0.799
15	0.901	51	0.866	87	0.992	123	0.813	159	0.769	195	0.901	231	0.866	267	0.992	303	0.813
16	0.882	52	0.849	88	0.993	124	0.829	160	0.787	196	0.882	232	0.849	268	0.993	304	0.829
17	0.864	53	0.831	89	0.995	125	0.845	161	0.803	197	0.864	233	0.831	269	0.995	305	0.845
18	0.847	54	0.813	90	0.997	126	0.861	162	0.820	198	0.847	234	0.813	270	0.997	306	0.861
19	0.831	55	0.795	91	0.997	127	0.877	163	0.838	199	0.831	235	0.795	271	0.997	307	0.877
20	0.818	56	0.778	92	0.998	128	0.891	164	0.858	200	0.818	236	0.778	272	0.998	308	0.891
21	0.802	57	0.761	93	0.999	129	0.903	165	0.878	201	0.802	237	0.761	273	0.999	309	0.903
22	0.788	58	0.746	94	0.999	130	0.913	166	0.893	202	0.788	238	0.746	274	0.999	310	0.913
23	0.777	59	0.733	95	1.000	131	0.922	167	0.909	203	0.777	239	0.733	275	1.000	311	0.922
24	0.768	60	0.724	96	0.995	132	0.928	168	0.924	204	0.768	240	0.724	276	0.995	312	0.928
25	0.762	61	0.716	97	0.990	133	0.932	169	0.940	205	0.762	241	0.716	277	0.990	313	0.932
26	0.758	62	0.712	98	0.986	134	0.932	170	0.955	206	0.758	242	0.712	278	0.986	314	0.932
27	0.758	63	0.711	99	0.982	135	0.929	171	0.961	207	0.758	243	0.711	279	0.982	315	0.929
28	0.760	64	0.714	100	0.979	136	0.925	172	0.968	208	0.760	244	0.714	280	0.979	316	0.925
29	0.766	65	0.721	101	0.963	137	0.918	173	0.976	209	0.766	245	0.721	281	0.963	317	0.918
30	0.774	66	0.729	102	0.947	138	0.908	174	0.983	210	0.774	246	0.729	282	0.947	318	0.908
31	0.785	67	0.739	103	0.931	139	0.895	175	0.990	211	0.785	247	0.739	283	0.931	319	0.895
32	0.799	68	0.753	104	0.916	140	0.881	176	0.991	212	0.799	248	0.753	284	0.916	320	0.881
33	0.813	69	0.769	105	0.901	141	0.866	177	0.992	213	0.813	249	0.769	285	0.901	321	0.866
34	0.829	70	0.787	106	0.882	142	0.849	178	0.993	214	0.829	250	0.787	286	0.882	322	0.849
35	0.845	71	0.803	107	0.864	143	0.831	179	0.995	215	0.845	251	0.803	287	0.864	323	0.831

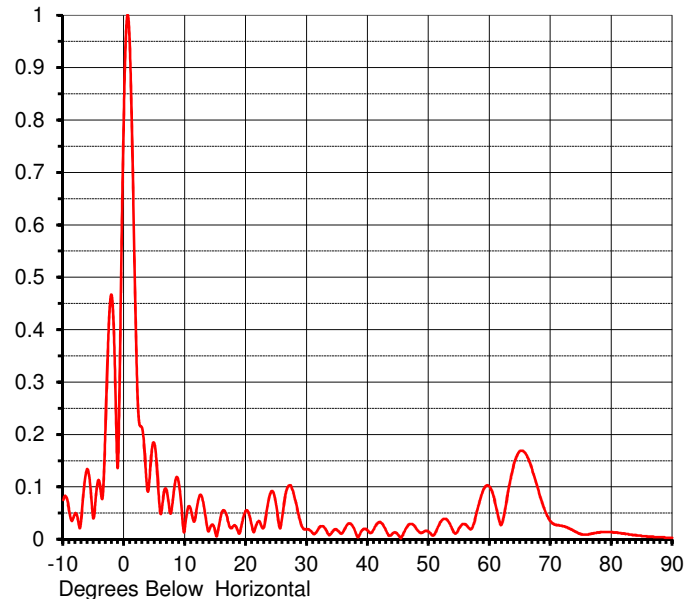
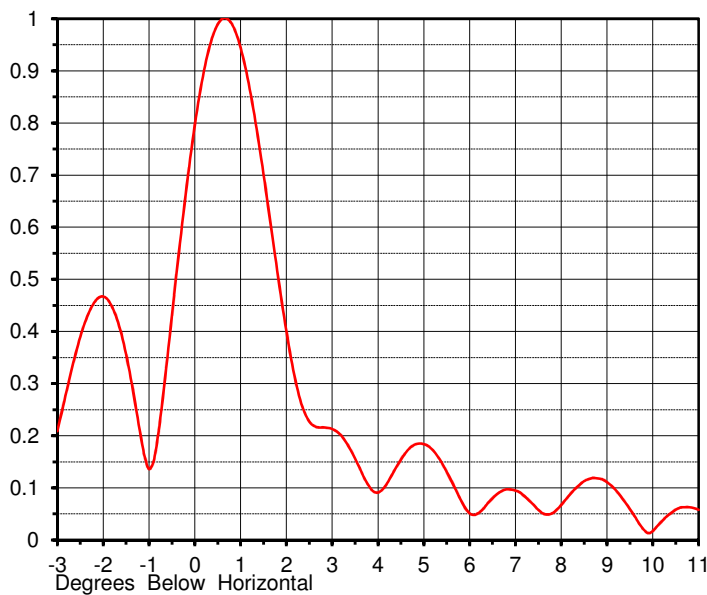
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ELEVATION PATTERN

Proposal No. **C-70753**
 Date **10-May-17**
 Call Letters **WNIT**
 Channel **31**
 Frequency **575 MHz**
 Antenna Type **TUA-04-14/56H-1-T**

RMS Directivity at Main Lobe **27.6 (14.40 dB)**
 RMS Directivity at Horizontal **20.0 (13.01 dB)**
Calculated

Beam Tilt **0.60 deg**
 Pattern Number **060**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.075	10.0	0.027	30.0	0.019	50.0	0.014	70.0	0.034
-9.0	0.053	11.0	0.053	31.0	0.011	51.0	0.011	71.0	0.027
-8.0	0.050	12.0	0.065	32.0	0.022	52.0	0.034	72.0	0.025
-7.0	0.046	13.0	0.069	33.0	0.020	53.0	0.037	73.0	0.021
-6.0	0.133	14.0	0.019	34.0	0.012	54.0	0.015	74.0	0.015
-5.0	0.041	15.0	0.011	35.0	0.017	55.0	0.022	75.0	0.010
-4.0	0.104	16.0	0.050	36.0	0.016	56.0	0.028	76.0	0.009
-3.0	0.247	17.0	0.036	37.0	0.030	57.0	0.020	77.0	0.011
-2.0	0.461	18.0	0.026	38.0	0.012	58.0	0.058	78.0	0.013
-1.0	0.151	19.0	0.013	39.0	0.017	59.0	0.096	79.0	0.014
0.0	0.852	20.0	0.055	40.0	0.016	60.0	0.100	80.0	0.014
1.0	0.908	21.0	0.022	41.0	0.020	61.0	0.063	81.0	0.012
2.0	0.349	22.0	0.034	42.0	0.033	62.0	0.030	82.0	0.011
3.0	0.208	23.0	0.027	43.0	0.016	63.0	0.090	83.0	0.009
4.0	0.097	24.0	0.088	44.0	0.011	64.0	0.145	84.0	0.008
5.0	0.180	25.0	0.060	45.0	0.008	65.0	0.169	85.0	0.006
6.0	0.048	26.0	0.050	46.0	0.015	66.0	0.161	86.0	0.005
7.0	0.091	27.0	0.102	47.0	0.029	67.0	0.131	87.0	0.004
8.0	0.078	28.0	0.077	48.0	0.019	68.0	0.092	88.0	0.004
9.0	0.104	29.0	0.029	49.0	0.013	69.0	0.056	89.0	0.003
								90.0	0.003

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Summary

Proposal No.	C-70753
Date	10-May-17
Call Letters	WNIT
Channel	31
Frequency	575 MHz
Antenna Type	TUA-04-14/56H-1-T

Antenna

		Hpol
ERP:	78.3 kW	(18.94 dBk)
RMS Gain*	27.57	(14.40 dB)

Antenna Input Power	2.8 kW	(4.53 dBk)
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Transmission Line

Type:	Rigid Digiline	Attenuation:	(1.23 dB)
Size:	6-1/8"	Efficiency:	75.4%
Impedance:	75 Ohm		
Length:	1050 ft	320.0 m	

Transmitter Output

3.8 kW	(5.76 dBk)
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Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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