

Horizontal Polarization AZIMUTH PATTERN

Exhibit No.

Date

24 Aug 2023

Call Letters

NEW4

Channel

4

Antenna Type

THB-O3-2/6-1

Location

Jacksonville, OR

Customer

Gain

1.3 (1.14 dB)

Calculated

Drawing #

THB-O3

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.806	72	0.839	108	0.974	144	0.899	180	0.883	216	0.899	252	0.974	288	0.839	324	0.806
1	1.000	37	0.804	73	0.834	109	0.978	145	0.890	181	0.882	217	0.907	253	0.970	289	0.845	325	0.810
2	0.999	38	0.803	74	0.828	110	0.982	146	0.882	182	0.881	218	0.915	254	0.965	290	0.850	326	0.814
3	0.998	39	0.803	75	0.823	111	0.986	147	0.873	183	0.879	219	0.922	255	0.960	291	0.856	327	0.820
4	0.997	40	0.804	76	0.818	112	0.989	148	0.863	184	0.877	220	0.929	256	0.954	292	0.861	328	0.827
5	0.996	41	0.807	77	0.813	113	0.991	149	0.854	185	0.874	221	0.936	257	0.949	293	0.866	329	0.835
6	0.994	42	0.810	78	0.810	114	0.994	150	0.844	186	0.870	222	0.943	258	0.943	294	0.870	330	0.844
7	0.991	43	0.813	79	0.807	115	0.996	151	0.835	187	0.866	223	0.949	259	0.936	295	0.874	331	0.854
8	0.989	44	0.818	80	0.804	116	0.997	152	0.827	188	0.861	224	0.954	260	0.929	296	0.877	332	0.863
9	0.986	45	0.823	81	0.803	117	0.998	153	0.820	189	0.856	225	0.960	261	0.922	297	0.879	333	0.873
10	0.982	46	0.828	82	0.803	118	0.999	154	0.814	190	0.850	226	0.965	262	0.915	298	0.881	334	0.882
11	0.978	47	0.834	83	0.804	119	1.000	155	0.810	191	0.845	227	0.970	263	0.907	299	0.882	335	0.890
12	0.974	48	0.839	84	0.806	120	1.000	156	0.806	192	0.839	228	0.974	264	0.899	300	0.883	336	0.899
13	0.970	49	0.845	85	0.810	121	1.000	157	0.804	193	0.834	229	0.978	265	0.890	301	0.882	337	0.907
14	0.965	50	0.850	86	0.814	122	0.999	158	0.803	194	0.828	230	0.982	266	0.882	302	0.881	338	0.915
15	0.960	51	0.856	87	0.820	123	0.998	159	0.803	195	0.823	231	0.986	267	0.873	303	0.879	339	0.922
16	0.954	52	0.861	88	0.827	124	0.997	160	0.804	196	0.818	232	0.989	268	0.863	304	0.877	340	0.929
17	0.949	53	0.866	89	0.835	125	0.996	161	0.807	197	0.813	233	0.991	269	0.854	305	0.874	341	0.936
18	0.943	54	0.870	90	0.844	126	0.994	162	0.810	198	0.810	234	0.994	270	0.844	306	0.870	342	0.943
19	0.936	55	0.874	91	0.854	127	0.991	163	0.813	199	0.807	235	0.996	271	0.835	307	0.866	343	0.949
20	0.929	56	0.877	92	0.863	128	0.989	164	0.818	200	0.804	236	0.997	272	0.827	308	0.861	344	0.954
21	0.922	57	0.879	93	0.873	129	0.986	165	0.823	201	0.803	237	0.998	273	0.820	309	0.856	345	0.960
22	0.915	58	0.881	94	0.882	130	0.982	166	0.828	202	0.803	238	0.999	274	0.814	310	0.850	346	0.965
23	0.907	59	0.882	95	0.890	131	0.978	167	0.834	203	0.804	239	1.000	275	0.810	311	0.845	347	0.970
24	0.899	60	0.883	96	0.899	132	0.974	168	0.839	204	0.806	240	1.000	276	0.806	312	0.839	348	0.974
25	0.890	61	0.882	97	0.907	133	0.970	169	0.845	205	0.810	241	1.000	277	0.804	313	0.834	349	0.978
26	0.882	62	0.881	98	0.915	134	0.965	170	0.850	206	0.814	242	0.999	278	0.803	314	0.828	350	0.982
27	0.873	63	0.879	99	0.922	135	0.960	171	0.856	207	0.820	243	0.998	279	0.803	315	0.823	351	0.986
28	0.863	64	0.877	100	0.929	136	0.954	172	0.861	208	0.827	244	0.997	280	0.804	316	0.818	352	0.989
29	0.854	65	0.874	101	0.936	137	0.949	173	0.866	209	0.835	245	0.996	281	0.807	317	0.813	353	0.991
30	0.844	66	0.870	102	0.943	138	0.943	174	0.870	210	0.844	246	0.994	282	0.810	318	0.810	354	0.994
31	0.835	67	0.866	103	0.949	139	0.936	175	0.874	211	0.854	247	0.991	283	0.813	319	0.807	355	0.996
32	0.827	68	0.861	104	0.954	140	0.929	176	0.877	212	0.863	248	0.989	284	0.818	320	0.804	356	0.997
33	0.820	69	0.856	105	0.960	141	0.922	177	0.879	213	0.873	249	0.986	285	0.823	321	0.803	357	0.998
34	0.814	70	0.850	106	0.965	142	0.915	178	0.881	214	0.882	250	0.982	286	0.828	322	0.803	358	0.999
35	0.810	71	0.845	107	0.970	143	0.907	179	0.882	215	0.890	251	0.978	287	0.834	323	0.804	359	1.000

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ELEVATION PATTERN

Exhibit No.

Date

24 Aug 2023

Call Letters

NEW4

Channel

4

Antenna Type

THB-O3-2/6-1

Location

Jacksonville, OR

Customer

Future fill is available!

RMS Gain at Main Lobe

2.1 (3.22 dB)

RMS Gain at Horizontal

2.1 (3.22 dB)

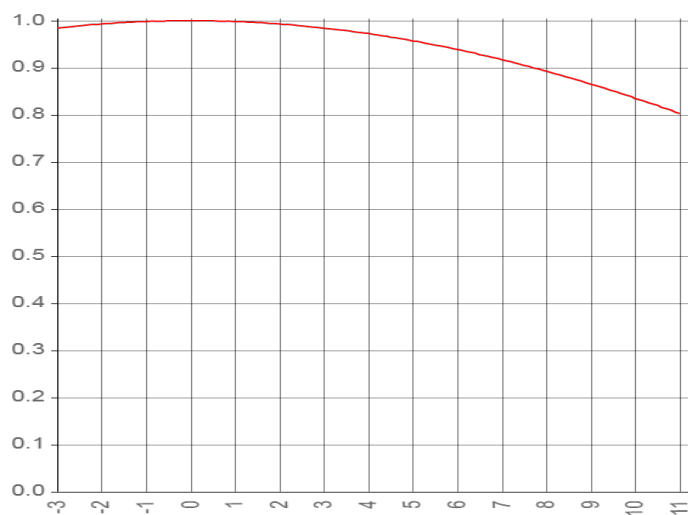
Calculated

Beam Tilt

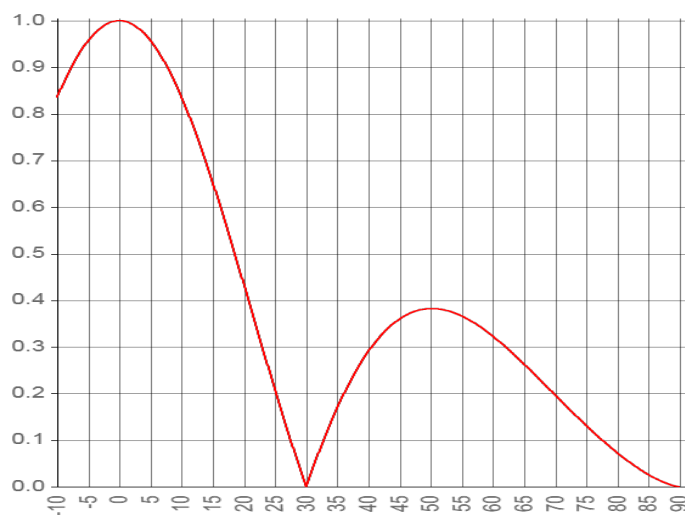
0 Degrees

Drawing #

02H021000



Degrees below horizontal



Degrees below horizontal

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10	0.835	10	0.835	30	0.000	50	0.382	70	0.196
-9	0.865	11	0.803	31	0.037	51	0.382	71	0.183
-8	0.893	12	0.768	32	0.073	52	0.380	72	0.170
-7	0.917	13	0.731	33	0.107	53	0.377	73	0.157
-6	0.939	14	0.693	34	0.140	54	0.372	74	0.144
-5	0.957	15	0.652	35	0.170	55	0.366	75	0.131
-4	0.973	16	0.611	36	0.198	56	0.359	76	0.118
-3	0.984	17	0.568	37	0.224	57	0.351	77	0.106
-2	0.993	18	0.524	38	0.249	58	0.343	78	0.095
-1	0.998	19	0.479	39	0.271	59	0.333	79	0.083
0	1.000	20	0.434	40	0.291	60	0.323	80	0.072
1	0.998	21	0.388	41	0.309	61	0.312	81	0.062
2	0.993	22	0.343	42	0.325	62	0.300	82	0.052
3	0.984	23	0.297	43	0.338	63	0.288	83	0.043
4	0.973	24	0.252	44	0.350	64	0.276	84	0.034
5	0.957	25	0.208	45	0.360	65	0.263	85	0.026
6	0.939	26	0.164	46	0.368	66	0.250	86	0.018
7	0.917	27	0.121	47	0.374	67	0.237	87	0.012
8	0.893	28	0.079	48	0.379	68	0.223	88	0.007
9	0.865	29	0.039	49	0.381	69	0.210	89	0.002

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System Summary

Exhibit No.	
Date	24 Aug 2023
Call Letters	NEW4
Channel	4
Antenna Type	THB-O3-2/6-1
Location	Jacksonville, OR
Customer	

Antenna

ERP:	22.0 kW (13.42 dBk)
RMS Gain*:	2.1 (3.22 dB)

Antenna Input Power:	10.5 kW
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Transmission Line

Type:	Transmission Line		
Size:	3-1/8"		
Impedance:	50 ohm		
Length:	120 ft (36.6 m)	Attenuation:	0.1 dB
		Efficiency:	97.82 %

Transmitter Output

10.7 kW (10.30 dBk)

* Gain is with respect to half wave dipole.

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Mechanicals

Exhibit No.

Date **24 Aug 2023**

Call Letters **NEW4**

Channel **4**

Antenna Type **THB-O3-2/6-1**

Location **Jacksonville, OR**

Customer

Preliminary Specifications

Side Mounted

Mechanical Specification without ice TIA-222-G

Basic Wind Speed 90 mph

Structure Class II

Exposure Category C

Topography Category 1

Mechanical Specifications

Height less Lightning Protector (H2) 23.8 ft (7.3 m)

Center of Radiation (H3) 11.9 ft (3.6 m)

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