JAMPRO ANTENNAS, INC.

WLNY-TV

CBS CORPORATION

JSM-16/D27-TCCP, CH.27

ANTENNA SPECIFICATIONS

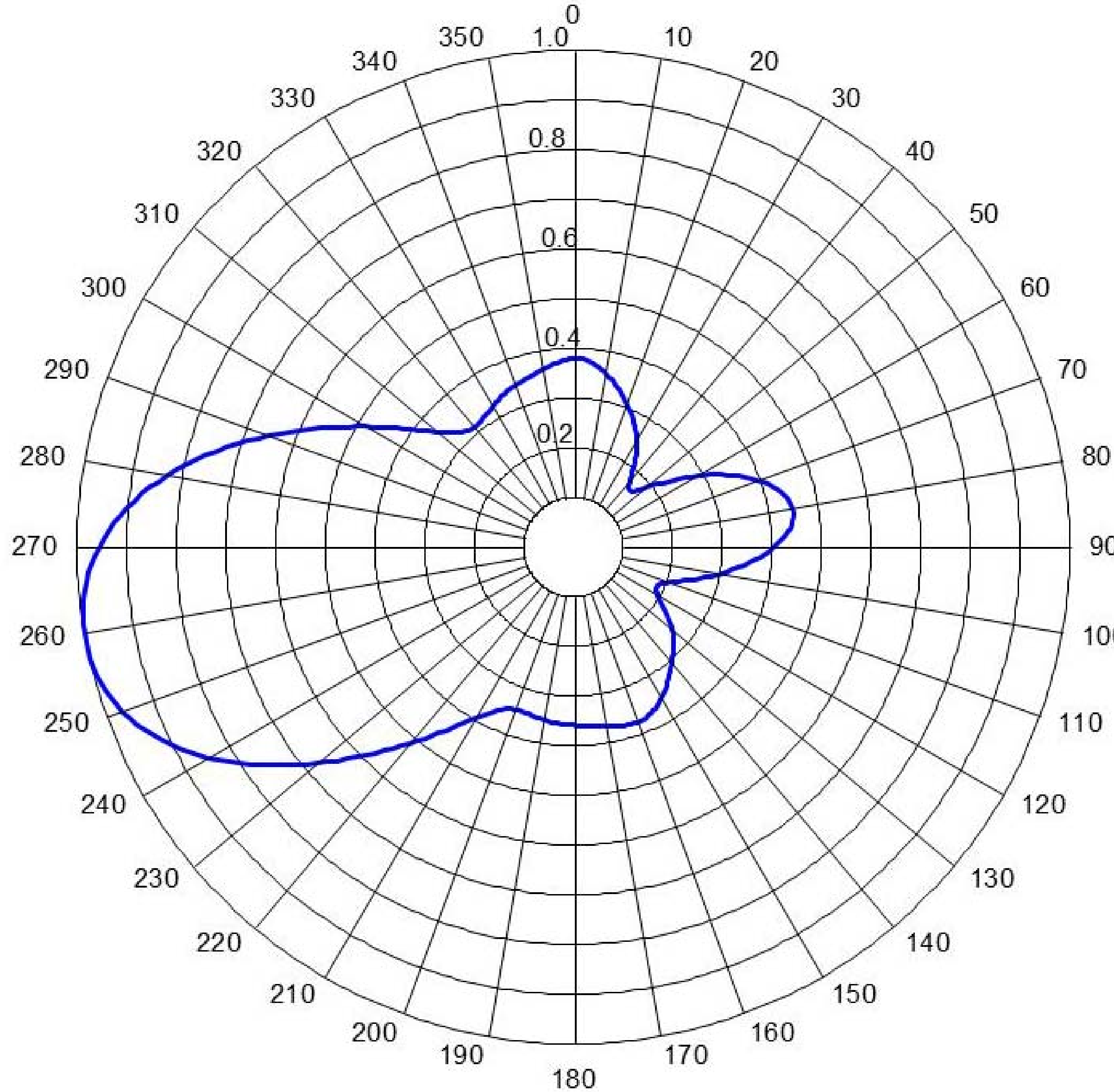
MODEL JSM-16/D27 TCCP

ELECTRICAL SPECIFICATIONS

CHANNEL:	27 (548-554 MHz)
POLARIZATION:	Circular
AZIMUTH PATTERN:	Lobe
PEAK GAIN (H-pol):	31 (x) / 14.9 dBd
PEAK GAIN (V-pol):	31 (x) / 14.9 dBd
H-POL HRP DIRECTIVITY :	4.46 (x) over isotropic radiator / 6.49 dB
V-POL HRP DIRECTIVITY :	3.17(x) over isotropic radiator / 5.01 dB
ELEVATION DIRECTIVITY :	16 (x) over Half-Wave Dipole / 12.04 dBd
BEAM TILT:	-0.75°
NULL FILL:	18%
INPUT IMPEDANCE:	50 ohms, nominal
MAXIMUM VSWR:	1.1:1 or better over ch.27
MAX Input Power:	60 kW (Avg.)
Antenna Input Connector:	6-1/8” EIA, female

MECHANICAL/ENVIRONMENTAL SPECIFICATIONS

PRESSURIZATION:	10 psi max, 3–5 psi operating
ANTI-ICING PROTECTION:	Radome



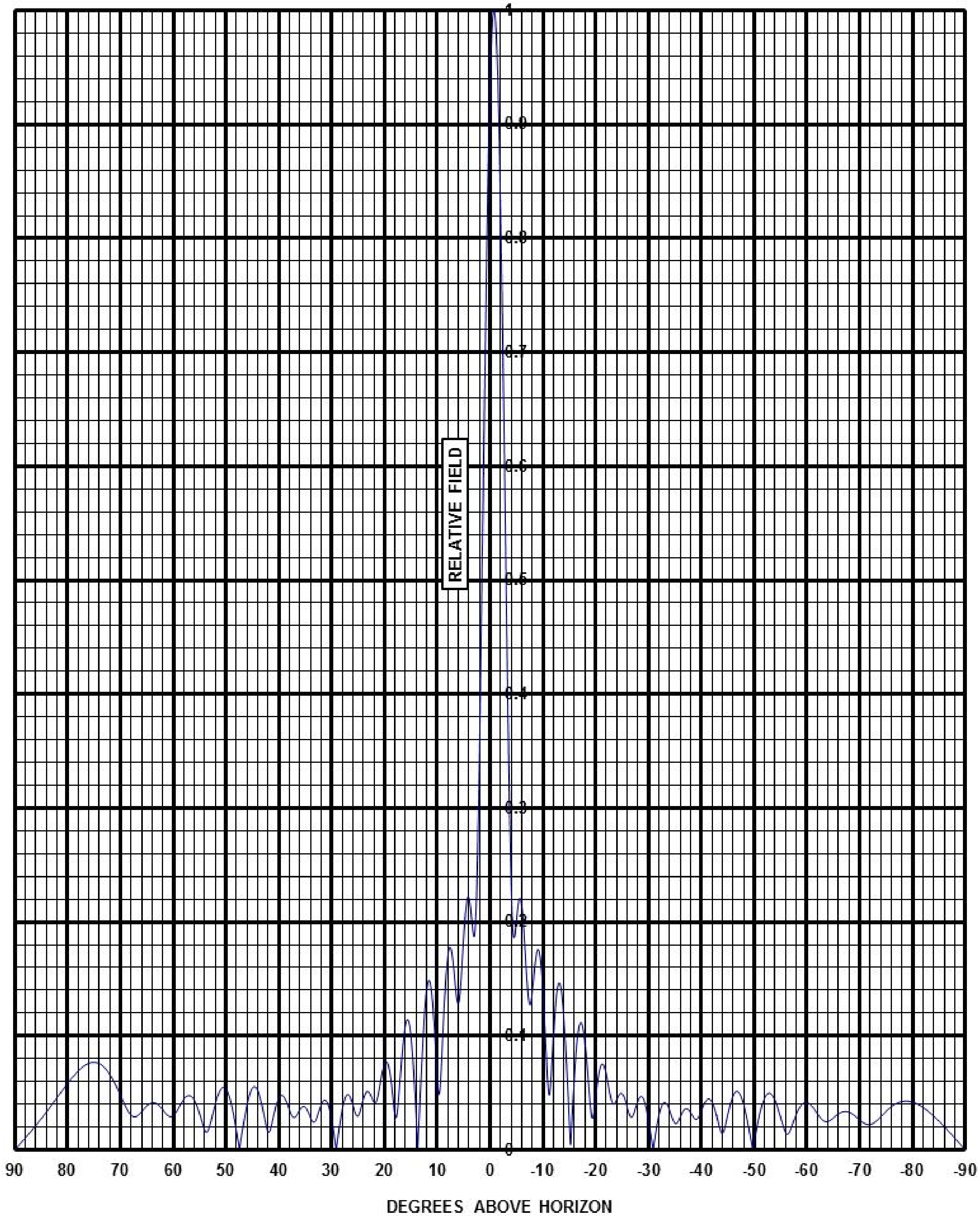
Values in Relative Field

Customer: CBS
Channel: D27
Site: WLNY

Model: JSM-16/D27 TCCP
Description: UHF Slot Antenna
Notes: Circularly Polarized

Azimuth Pattern Tabulation

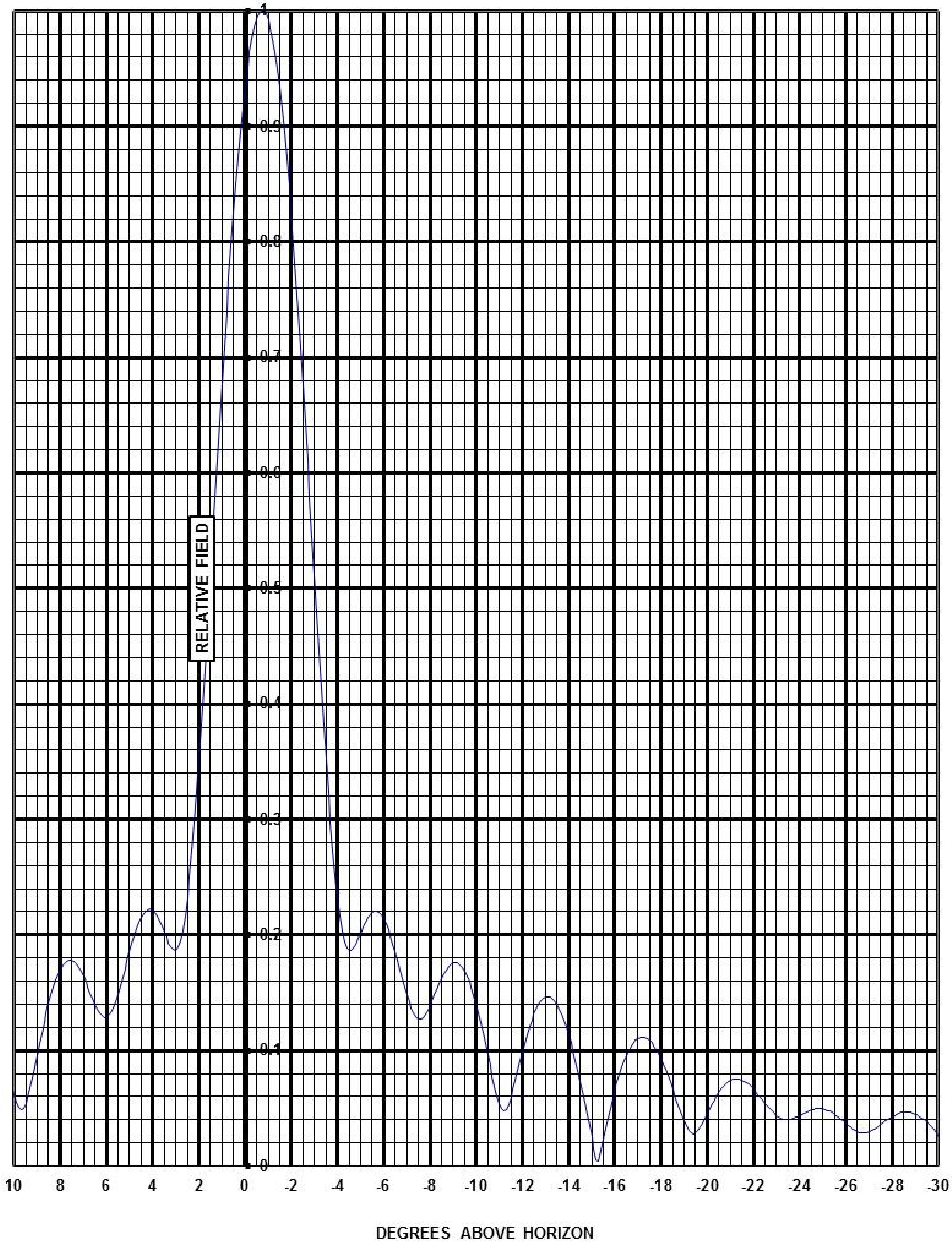
AZIMUTH	FIELD	dB		AZIMUTH	FIELD	dB
0	0.380	-8.40		180	0.358	-8.91
5	0.375	-8.51		185	0.356	-8.97
10	0.359	-8.90		190	0.352	-9.06
15	0.335	-9.50		195	0.348	-9.18
20	0.310	-10.17		200	0.348	-9.17
25	0.285	-10.91		205	0.363	-8.81
30	0.255	-11.86		210	0.397	-8.02
35	0.218	-13.23		215	0.450	-6.94
40	0.180	-14.91		220	0.516	-5.75
45	0.162	-15.83		225	0.593	-4.55
50	0.183	-14.77		230	0.677	-3.39
55	0.231	-12.74		235	0.764	-2.33
60	0.287	-10.83		240	0.847	-1.44
65	0.344	-9.28		245	0.917	-0.76
70	0.395	-8.08		250	0.966	-0.30
75	0.433	-7.28		255	0.994	-0.05
80	0.449	-6.96		260	0.999	-0.01
85	0.438	-7.17		265	0.988	-0.10
90	0.404	-7.87		270	0.956	-0.39
95	0.356	-8.98		275	0.903	-0.89
100	0.303	-10.37		280	0.831	-1.61
105	0.251	-12.00		285	0.746	-2.55
110	0.207	-13.68		290	0.655	-3.68
115	0.185	-14.64		295	0.566	-4.95
120	0.197	-14.11		300	0.485	-6.29
125	0.229	-12.82		305	0.415	-7.63
130	0.260	-11.69		310	0.361	-8.84
135	0.286	-10.89		315	0.327	-9.71
140	0.308	-10.24		320	0.314	-10.08
145	0.331	-9.61		325	0.316	-10.00
150	0.353	-9.05		330	0.326	-9.73
155	0.369	-8.65		335	0.337	-9.45
160	0.376	-8.51		340	0.346	-9.22
165	0.373	-8.57		345	0.354	-9.02
170	0.367	-8.72		350	0.363	-8.80
175	0.361	-8.85		355	0.373	-8.57



Model: JSM-16 / 27 TCCP

Site: WLNY-TV
Channel: 27

Description: UHF Slot Antenna
-0.75° Beam Tilt, 18% Null Fill



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Site: WLNY-TV
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Elevation Pattern Tabulation

RELATIVE FIELD VS ELEVATION ANGLE

ELEVATION ANGLE	RELATIVE FIELD	ELEVATION ANGLE	RELATIVE FIELD	ELEVATION ANGLE	RELATIVE FIELD
10	0.062	-26	0.037	-61	0.038
9	0.096	-27	0.029	-62	0.032
8	0.170	-28	0.043	-63	0.026
7	0.164	-29	0.045	-64	0.025
6	0.129	-30	0.026	-65	0.028
5	0.186	-31	0.004	-66	0.032
4	0.221	-32	0.031	-67	0.034
3	0.187	-33	0.042	-68	0.033
2	0.353	-34	0.035	-69	0.030
1	0.677	-35	0.023	-70	0.026
0	0.934	-36	0.029	-71	0.023
-1	0.993	-37	0.036	-72	0.022
-2	0.823	-38	0.033	-73	0.025
-3	0.511	-39	0.027	-74	0.029
-4	0.232	-40	0.034	-75	0.034
-5	0.202	-41	0.044	-76	0.038
-6	0.214	-42	0.042	-77	0.041
-7	0.148	-43	0.028	-78	0.042
-8	0.138	-44	0.015	-79	0.043
-9	0.176	-45	0.031	-80	0.042
-10	0.141	-46	0.047	-81	0.040
-11	0.054	-47	0.051	-82	0.037
-12	0.099	-48	0.040	-83	0.034
-13	0.146	-49	0.019	-84	0.030
-14	0.114	-50	0.007	-85	0.025
-15	0.025	-51	0.030	-86	0.020
-16	0.066	-52	0.045	-87	0.015
-17	0.110	-53	0.050	-88	0.010
-18	0.093	-54	0.043	-89	0.005
-19	0.039	-55	0.029	-90	0.000
-20	0.045	-56	0.015		
-21	0.074	-57	0.019		
-22	0.067	-58	0.031		
-23	0.043	-59	0.039		
-24	0.044	-60	0.041		
-25	0.049				

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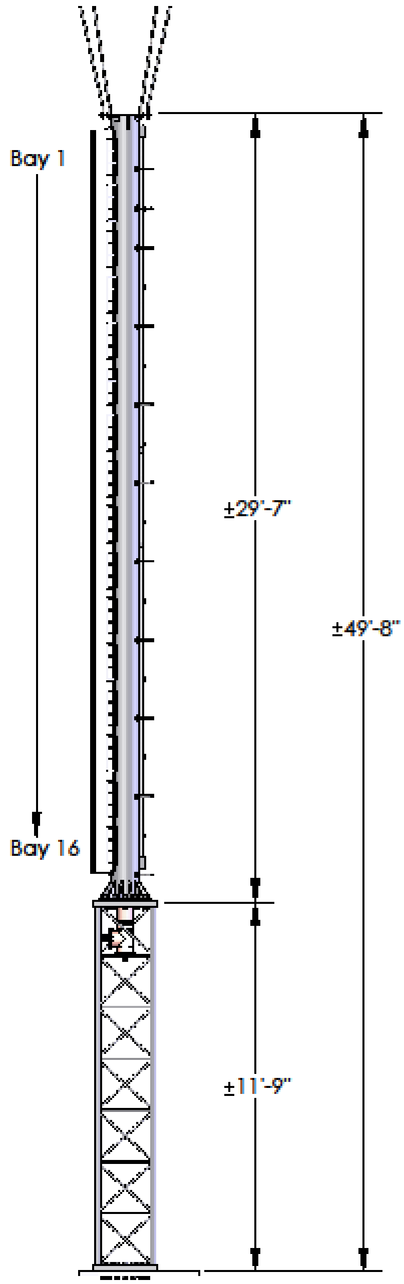

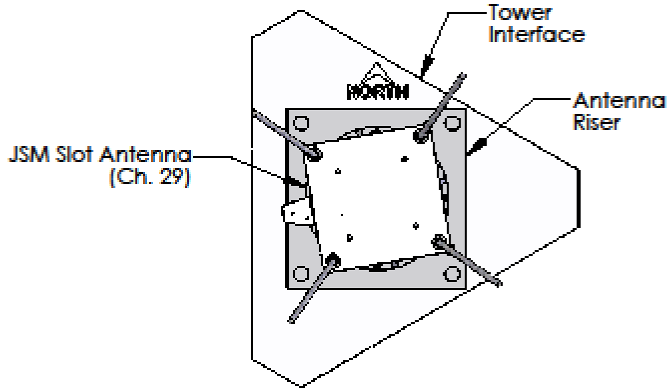

TOP VIEW

MECHANICAL LOADING DATA				
	Weight, Wt.		Effective Projected Area, EPA	
	no ice	1.26" ice	no ice	1.26" ice
ANTENNA SYSTEM	**3525 lbs. (1599 kg)**	**5479 lbs. (2485 kg)**	**108 sq. ft. (10.0 sq. m)**	**156 sq. ft. (14.4 sq. m)**

NOTES & ASSUMPTIONS			
CODE REFERENCE:		TIA-222-G	
Structure Class:		II	
Structure Type: 2		Tubular pole structures, latticed structures with other than triangular, square or rectangular cross sections, strength design of appurtenances.	
Exposure Class:		C	
Topographic Category:		1	
Basic Wind Speed:		90 mph (145 kph)	
Ice Conditions:	@ 33' (10m) AGL	no ice	0.5" (13mm)
	@ 330' (100m) AGL	no ice	1.26" (32mm)
System Includes:		Slot Antenna, Antenna Riser, and Feed System.	

NOTES

Ice thickness at an assumed elevation of 330' (100m) is 1.26" (32mm).

PRELIMINARY DRAWINGS AND CALCULATIONS	NAME / DATE DRAWN BY: MLH, 10 JUL 2008 LAST REVISED:	MECHANICAL LOADING DATA SHEET WLNY JSM-16 Ch. 29	
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JAMPRO ANTENNAS, INC., 6340 SKY CREEK DRIVE, SACRAMENTO, CA 95828		SIZE A, DWG. NO. 14464-00, SHEET 7 OF 7	REV. A

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6340 Sky Creek Dr., Sacramento, CA 95828
FAX (916) 383-1182 Web www.Jampro.com

System Gain-Loss Calculator Summary Sheet:

Description		Values*	
Frequency			549.3 MHz
Effective Radiated Power		28.63 dBk	730.00 kW
Antenna Gain		14.91 dBd	31.00 Times
Required Antenna Input Power		13.72 dBk	23.54 kW
Coax System Length		680.0 feet	207.3 Meters
Coax Loss Per 100 Feet		0.114 dB	
Total Coax Losses		0.77 dB	4.59 kW
Coax Efficiency:		83.69 %	
Combiner Losses		0.00 dB	0.00 kW
Other Losses		0.28 dB	1.87 kW
Total System Losses		1.05 dB	6.47 kW
Required Transmitter Output	=	14.77 dBk	30.01 kW

Company Name:	WLNY TV CPOL
Info Line:	JSM-16/D27 TCCP
Coax Type:	6" Proline Rigid
Date:	15-May-18

Note: *Values are rounded to two places. Information is provide as an estimate only. Jampro accepts no responsibility for accuracy. Please verify these figures with your consulting engineer.