



Dielectric’s TLP Series antenna is designed for single channel, low wind load, horizontal, circular or elliptically polarized operation.

Dielectric Advantages

- Operating Range: 6 MHz band within 470-860 MHz
- Pattern optimization available—factory test using location and orientation on supporting tower to minimize tower effects. Might require custom mounts.
- Suitable for analog or DTV applications
- DTV ERPs up to 1300 kW
- 17 different standard azimuth patterns available
- 6 standard elevation gains available
- Available horizontally, elliptically or circularly polarized
- Low VSWR, < 1.1:1 over operating channel
- Slot covers standard, radome optional
- Standard brackets or custom mounting options available
- 1 5/8" EIA input standard; custom 3 1/8" EIA available
- Custom azimuth and elevation patterns available

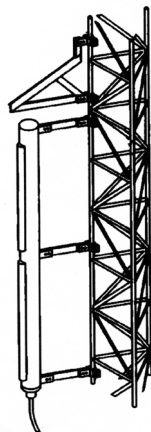
Specifications

**MAXIMUM INPUT POWER RATING
DTV (AVERAGE)***

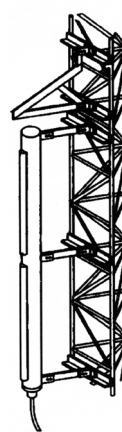
Antenna	Standard	Custom
TLP-4	4.0 kW	—
TLP-6	5.0 kW	—
TLP-8	5.0 kW	—
TLP-12	5.0 kW	—
TLP-16	4.0 kW	8.0 kW
TLP-24	4.9 kW	8.8 kW

Input: 1 5/8" EIA on Standard, 3 1/8" EIA on Custom.
*NTSC: Peak Sync + 10% aural

Mounting Options

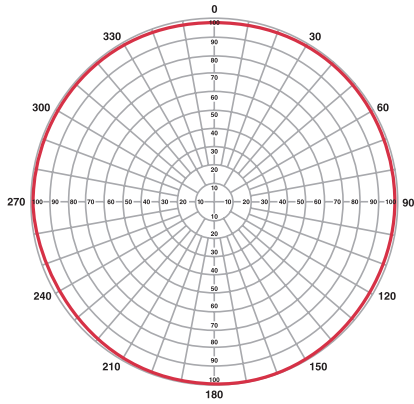


STANDARD LEG MOUNT



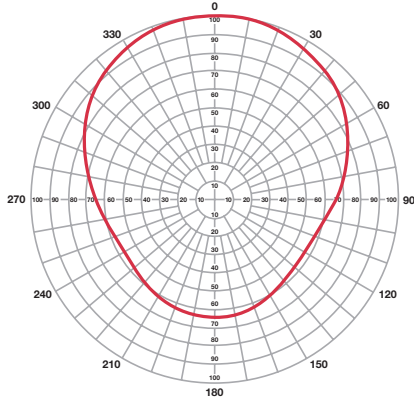
CUSTOM FACE MOUNTS
(OTHER OPTIONS AVAILABLE)

TLP-A



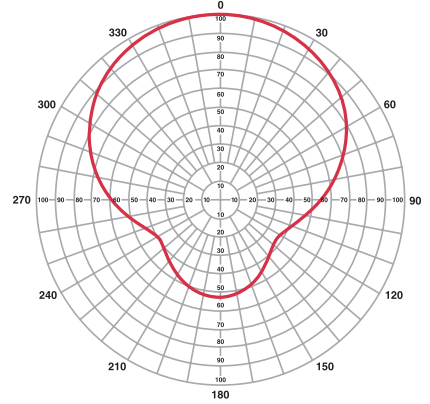
AZIMUTH GAIN: 1.0

TLP-B



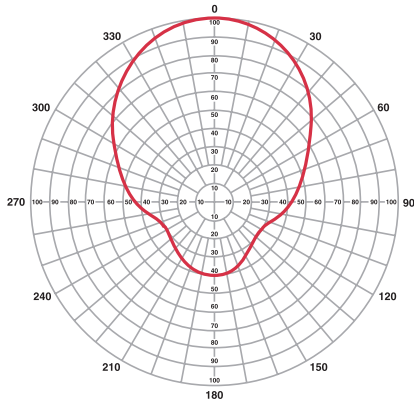
AZIMUTH GAIN: 1.7

TLP-C



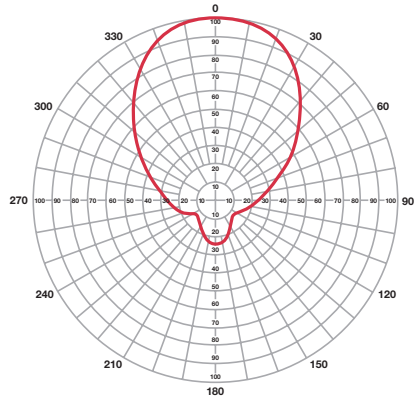
AZIMUTH GAIN: 2.1

TLP-D



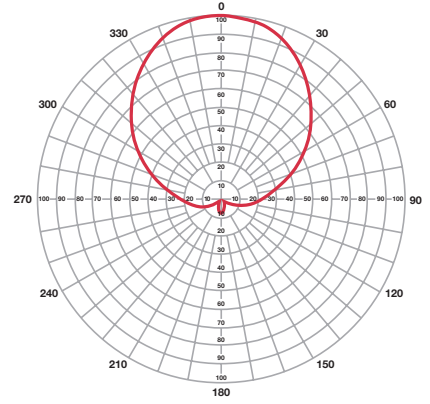
AZIMUTH GAIN: 2.9

TLP-E



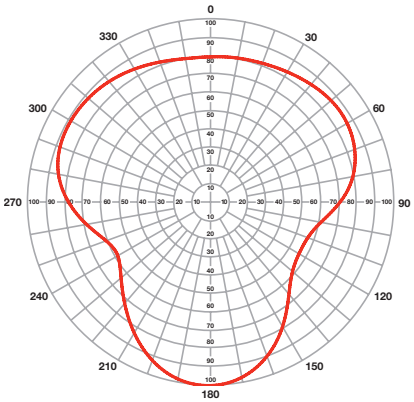
AZIMUTH GAIN: 3.9

TLP-F



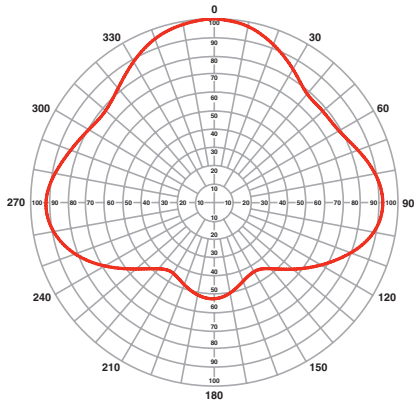
AZIMUTH GAIN: 3.6

TLP-G



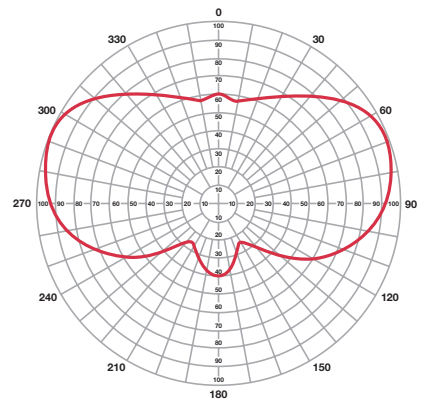
AZIMUTH GAIN: 1.6

TLP-H



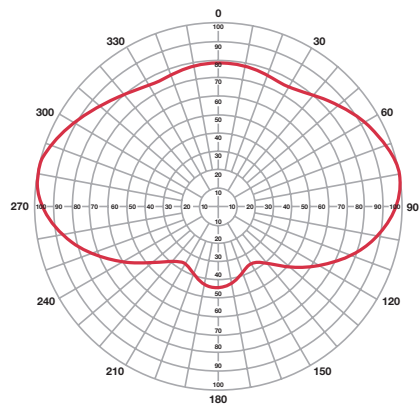
AZIMUTH GAIN: 1.7

TLP-I



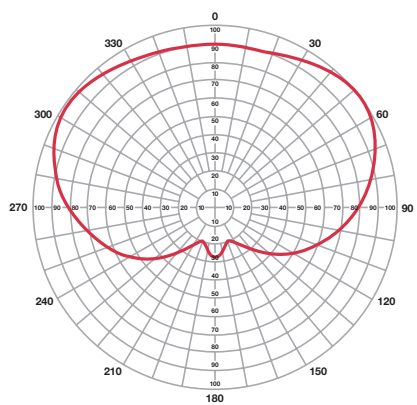
AZIMUTH GAIN: 1.8

TLP-J



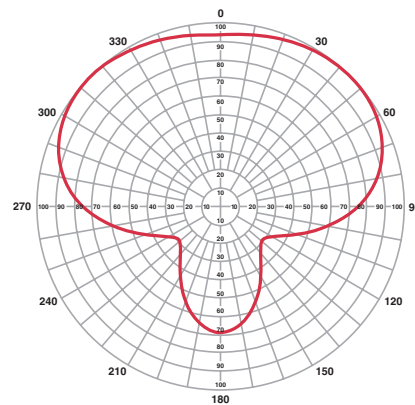
AZIMUTH GAIN: 2.0

TLP-M



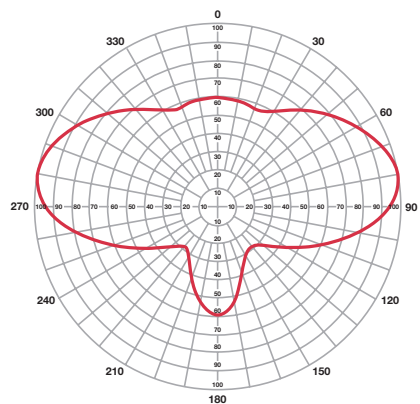
AZIMUTH GAIN: 1.9

TLP-L



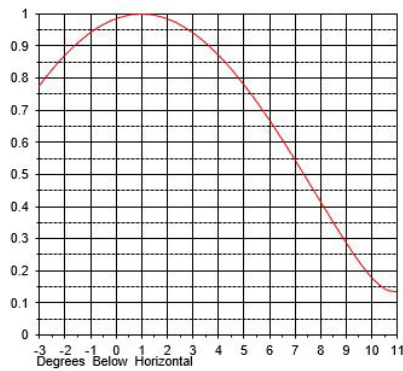
AZIMUTH GAIN: 1.7

TLP-O



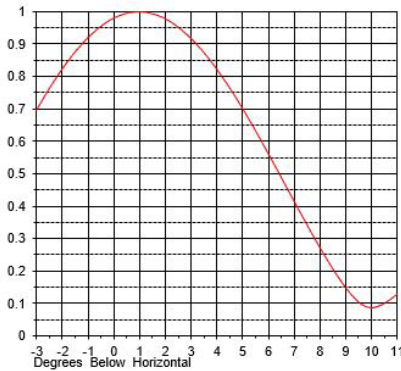
AZIMUTH GAIN: 2.2

TLP-4



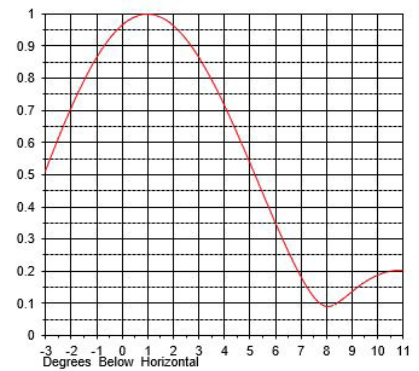
RMS GAIN: 3.9 (5.91 dB)

TLP-6



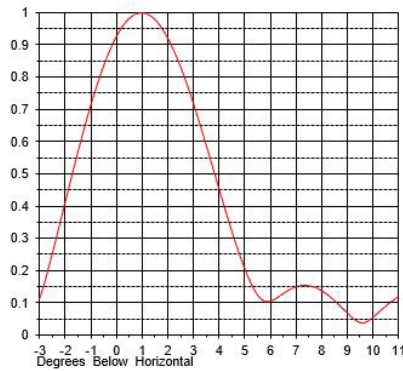
RMS GAIN: 6.1 (7.83 dB)

TLP-8



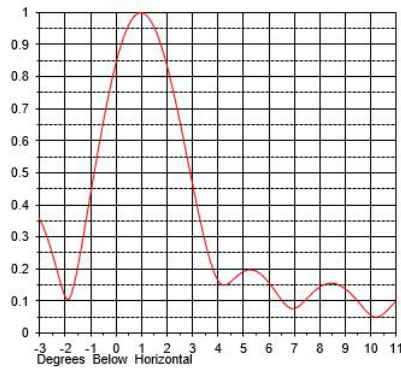
RMS GAIN: 8.1 (9.10 dB)

TLP-12



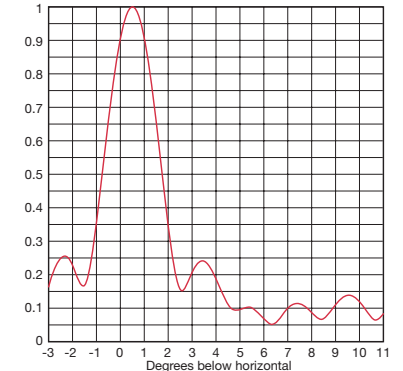
RMS GAIN: 12.3 (10.89 dB)

TLP-16



RMS GAIN: 15.4 (11.87 dB)

TLP-24



RMS GAIN: 24.0 (13.80 dB)

Custom beam tilts available to meet your specific requirements. Please contact Dielectric for more information.

Antenna Type	Azimuth Pattern	Peak Power Gain Ratio	Gain (dBd)	Length (ft)	Weight (lb)	Wind Area (ft ²) w/o Radome	Wind Area (ft ²) w/ Radome
TLP-4A-4O	A	4.0	6.0	7.3' to 10.6'	115 to 200	14.32 to 20.99	7.99 to 9.8
	B	7.2	8.6		75 to 105	10.39 to 13.99	7.69 to 9.31
	C	8.6	9.3		90 to 120	10.71 to 14.40	8.76 to 11.39
	D	11.6	10.7		80 to 155	14.79 to 22.41	9.76 to 14.68
	E	15.9	12.0		85 to 180	17.54 to 28.28	11.11 to 17.11
	F	15.8	12.0		95 to 180	15.62 to 25.52	11.11 to 17.11
	G	6.5	8.1		85 to 125	13.00 to 17.34	8.81 to 12.09
	H	7.1	8.5		85 to 150	15.19 to 22.18	10.03 to 14.46
	I	7.5	8.8		85 to 155	14.84 to 21.47	10.19 to 14.88
	J	8.5	9.3		85 to 150	14.22 to 22.77	9.98 to 14.42
	M	7.7	8.9		85 to 180	15.40 to 25.11	11.00 to 16.88
	N	7.1	8.5		85 to 120	11.13 to 16.81	8.76 to 11.39
	O	9.2	9.7		85 to 140	12.38 to 17.11	9.68 to 13.53

Antenna Type	Azimuth Pattern	Peak Power Gain Ratio	Gain (dBd)	Length (ft)	Weight (lb)	Wind Area (ft ²) w/o Radome	Wind Area (ft ²) w/ Radome
TLP-6A-6O	A	6.0	7.8	10.1' to 14.7'	145 to 265	19.14 to 29.71	9.09 to 11.62
	B	11.0	10.4		85 to 130	13.41 to 18.09	8.67 to 10.95
	C	13.1	11.8		110 to 150	13.81 to 19.47	10.19 to 13.88
	D	17.8	12.5		95 to 185	19.32 to 30.63	11.62 to 18.53
	E	24.3	13.9		100 to 220	23.47 to 39.49	13.53 to 21.96
	F	24.2	13.8		115 to 220	20.59 to 35.34	13.53 to 21.96
	G	10.0	10.0		100 to 155	18.02 to 25.79	10.27 to 14.87
	H	10.8	10.3		100 to 185	19.78 to 30.12	11.99 to 18.22
	I	11.5	10.6		100 to 190	19.24 to 29.06	12.22 to 18.82
	J	13.1	11.2		100 to 185	18.48 to 31.21	11.93 to 18.17
	M	11.8	10.7		100 to 215	20.27 to 34.73	13.37 to 21.65
	N	10.9	10.4		100 to 150	14.46 to 23.39	10.19 to 13.88
	O	14.1	11.5		100 to 170	15.85 to 23.54	11.49 to 16.91

Wind area TIA/EIA 222-G

The tables reflect minimum values for 860 MHz and maximum for 470 MHz. For other frequencies the height (H), weight (W) and windload (WL) can be interpolated using formula: $H, W, \text{ or } WL \text{ at } f = \text{MAX} - (f-860) * (\text{MIN}-\text{MAX})/390$

Center of radiation is one half of the height: $C/R = 0.5 * H$

- For circular polarization divide Peak gain by 2 (subtract 3 dB)
- For elliptical polarization contact factory
- Peak gain is relative to half wave dipole

Antenna Type	Azimuth Pattern	Peak Power Gain Ratio	Gain (dBd)	Length (ft)	Weight (lb)	Wind Area (ft ²) w/o Radome	Wind Area (ft ²) w/ Radome
TLP-8A-8O	A	13.6	11.3	12.9' to 18.9'	180 to 330	24.59 to 39.75	10.19 to 13.44
	B	16.8	12.3		95 to 160	16.46 to 21.82	9.65 to 12.59
	C	27.2	14.4		125 to 180	16.74 to 25.62	11.63 to 16.38
	D	23.2	13.7		110 to 220	24.13 to 40.17	13.47 to 22.38
	E	31.2	14.9		115 to 255	29.43 to 50.72	15.87 to 26.82
	F	28.8	14.5		135 to 255	25.58 to 45.4	15.94 to 26.82
	G	12.8	11.1		115 to 185	23.82 to 35.33	11.73 to 17.65
	H	13.6	11.3		115 to 215	24.36 to 38.1	13.96 to 21.99
	I	14.4	11.6		115 to 220	23.65 to 36.69	14.26 to 22.76
	J	16.0	12.0		115 to 215	23.2 to 40.82	13.88 to 21.92
	M	15.2	11.8		115 to 250	25.18 to 44.73	15.74 to 26.41
	N	13.6	11.3		115 to 180	18.33 to 30.89	11.63 to 16.38
	O	17.6	12.4		115 to 205	19.86 to 30.89	13.31 to 20.29

Antenna Type	Azimuth Pattern	Peak Power Gain Ratio	Gain (dBd)	Length (ft)	Weight (lb)	Wind Area (ft ²) w/o Radome	Wind Area (ft ²) w/ Radome
TLP-12A-12O	A	12.0	10.8	18.6' to 27.2'	240 to 460	37.32 to 58.96	12.38 to 17.08
	B	22.9	13.6		120 to 210	21.53 to 29.27	11.61 to 15.86
	C	27.2	14.4		160 to 235	23.75 to 38.14	14.49 to 21.37
	D	36.9	15.7		135 to 285	35.74 to 62.28	17.18 to 30.09
	E	50.5	17.0		150 to 325	42.7 to 77.09	20.77 to 36.53
	F	50.4	17.0		175 to 325	37.89 to 70.17	20.77 to 36.53
	G	20.8	13.2		150 to 245	36.64 to 50.32	14.63 to 23.22
	H	22.5	13.5		150 to 280	33.57 to 54.14	17.88 to 29.52
	I	24.0	13.8		150 to 290	32.5 to 52.02	18.32 to 30.63
	J	27.2	14.3		150 to 280	34.39 to 63.3	17.77 to 29.42
	M	24.5	13.9		150 to 320	37.36 to 69.16	20.48 to 35.94
	N	22.6	13.5		150 to 235	26.00 to 48.40	14.49 to 27.37
	O	29.3	14.7		150 to 265	29.04 to 48.10	16.94 to 27.05

Antenna Type	Azimuth Pattern	Peak Power Gain Ratio	Gain (dBd)	Length (ft)	Weight (lb)	Wind Area (ft ²) w/o Radome	Wind Area (ft ²) w/ Radome
TLP-16A-16O	A	16.0	12.0	26' to 38.0'	375 to 685	49.62 to 79.95	20.83 to 27.33
	B	27.2	14.3		215 to 335	33.38 to 44.09	19.75 to 25.62
	C	33.6	15.3		270 to 380	33.94 to 51.69	23.71 to 33.21
	D	46.4	16.7		240 to 460	48.71 to 80.79	27.39 to 45.22
	E	62.4	18.0		255 to 530	59.31 to 101.89	32.34 to 54.1
	F	57.6	17.6		290 to 530	51.61 to 91.25	32.34 to 54.1
	G	25.6	14.1		250 to 395	48.09 to 71.12	23.9 to 35.76
	H	27.2	14.3		255 to 450	49.18 to 76.64	28.36 to 44.43
	I	28.8	14.6		255 to 465	47.75 to 73.83	28.96 to 45.97
	J	32.0	15.1		255 to 450	46.86 to 82.09	28.2 to 44.29
	M	30.4	14.8		255 to 520	50.82 to 89.9	31.94 to 53.28
	N	27.2	14.3		250 to 380	37.1 to 62.22	23.71 to 33.21
	O	35.2	15.5		255 to 430	40.16 to 62.23	27.07 to 41.04

Antenna Type	Azimuth Pattern	Peak Power Gain Ratio	Gain (dBd)	Length (ft)	Weight (lb)	Wind Area (ft ²) w/o Radome	Wind Area (ft ²) w/ Radome
TLP-24A-24O	A	23.0	13.6	39.1' to 57.0'	555 to 1015	74.51 to 119.99	31.32 to 41.07
	B	39.1	15.9		310 to 495	50.14 to 66.21	29.7 to 38.5
	C	48.3	16.8		400 to 555	50.98 to 77.61	35.63 to 49.88
	D	66.7	18.2		345 to 675	73.14 to 121.26	41.16 to 67.89
	E	89.7	19.5		370 to 785	89.03 to 152.9	48.58 to 81.21
	F	82.8	19.2		425 to 785	77.48 to 136.95	48.58 to 81.21
	G	36.8	15.7		365 to 580	72.21 to 106.74	35.92 to 53.71
	H	39.1	15.9		370 to 670	73.84 to 115.04	42.61 to 66.72
	I	41.4	16.2		370 to 685	71.69 to 110.81	34.51 to 69.02
	J	46.0	16.6		370 to 665	70.35 to 123.21	42.37 to 66.51
	M	43.7	16.4		370 to 770	76.29 to 134.93	47.98 to 79.99
	N	39.1	15.9		365 to 555	55.72 to 93.41	35.63 to 49.88
	O	50.6	17.0		370 to 630	60.31 to 93.42	40.67 to 61.63