



Dielectric's TLP-BB Series antenna is designed specifically for multichannel operation with low wind load.

Dielectric Advantages

- Operating Range: 60 MHz band within 470-860 MHz
- Economical broadband design
- Suitable for multiplexing many channels
- DTV ERPs up to 100 kW
- 13 Standard azimuth patterns available
- Stable elevation pattern with gain of 12 with 2 degrees nominal beam tilt
- Available horizontally, elliptically or circularly polarized
- Low VSWR, < 1:2 over operating band. Channel selection and addition of VPOL can affect VSWR spec.
- Slot covers standard, radomes optional
- Standard mounting brackets available for 1 1/4" to 4 1/2" OD pipes. Custom mounting options also available.
- 3 1/8" EIA input standard
- Survives winds up to 125 mph (56 m/s)

Antenna Specifications

Band	Polarization	VSWR	Input	Power Rating	Beam Tilt
UHF (470-860 MHz)	Horizontal or Elliptical	1:2 Channel selection & addition of VPOL can affect VSWR spec	3 1/8" 50 Ω EIA	8 kW max. average	2.0° nominal

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: $H, W, \text{ or } WL \text{ at } f = \text{MAX} - (f-860) * (\text{MIN}-\text{MAX})/390$

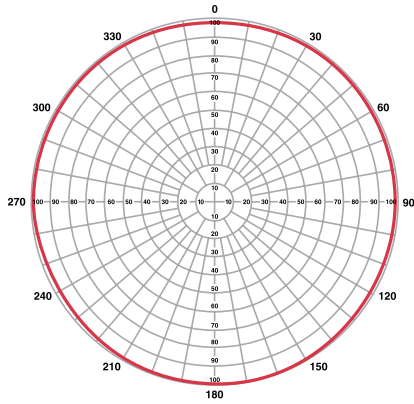
Center of radiation is one half of the height: $C/R = 0.5 * H$

- For elliptical polarization contact factory

Antenna Type	Azimuth Pattern	Peak Power Gain Ratio	Gain (dBd)	Height ft (m)	Weight lb (kg)	Wind Area ¹ ft ² (m ²)
TLP-12-BB-B	TLP-B	Channel specific. Please contact factory.				
TLP-12-BB-M	TLP-M	Channel specific. Please contact factory.				

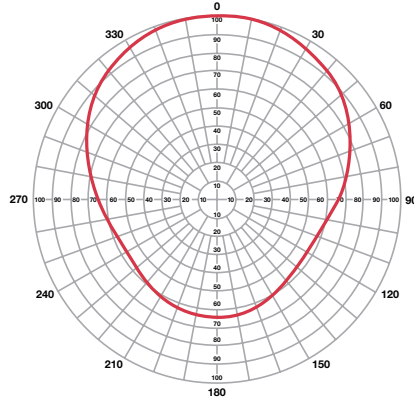
¹ Wind area TIA/EIA 222-G

TLP-BB-A



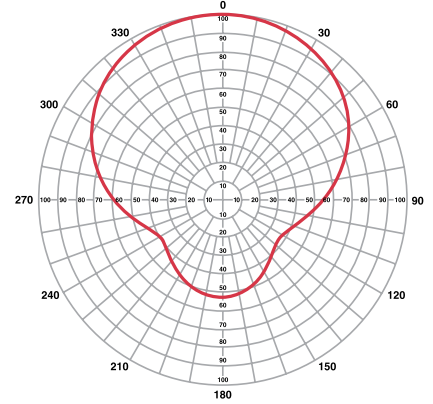
AZIMUTH GAIN: 1.0

TLP-BB-B



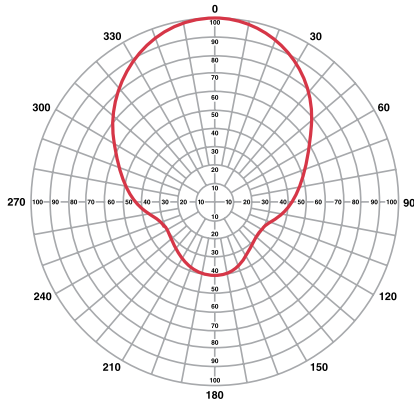
AZIMUTH GAIN: 1.7

TLP-BB-C



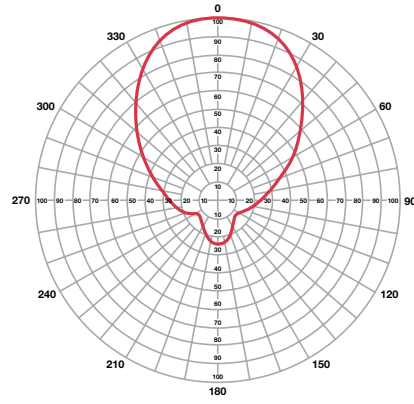
AZIMUTH GAIN: 2.1

TLP-BB-D



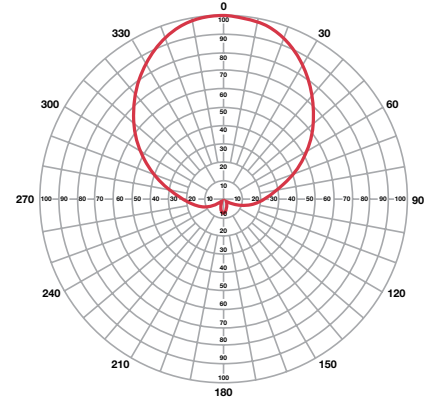
AZIMUTH GAIN: 2.9

TLP-BB-E



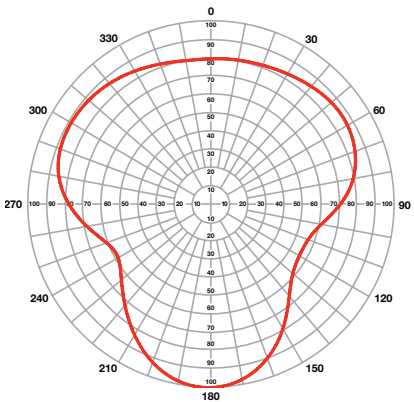
AZIMUTH GAIN: 3.9

TLP-BB-F



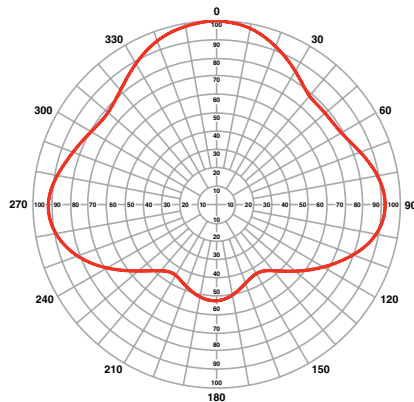
AZIMUTH GAIN: 3.6

TLP-BB-G



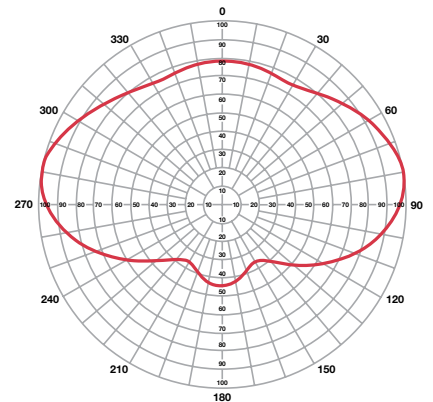
AZIMUTH GAIN: 1.6

TLP-BB-H



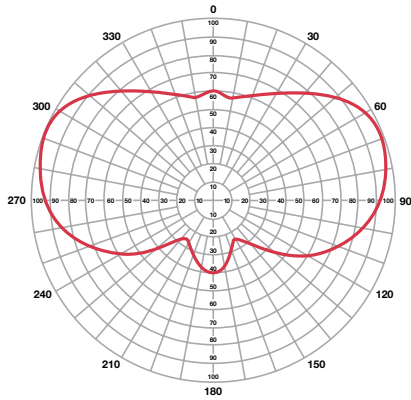
AZIMUTH GAIN: 1.7

TLP-BB-I



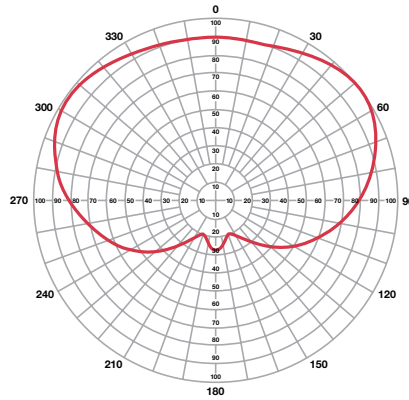
AZIMUTH GAIN: 1.8

TLP-BB-J



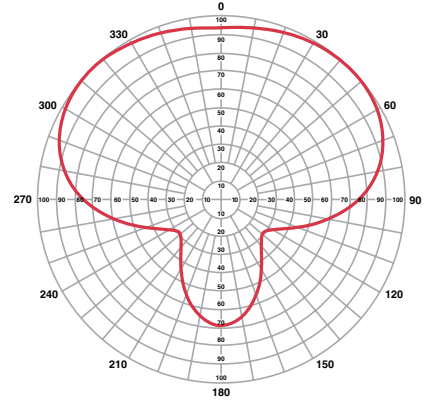
AZIMUTH GAIN: 2.0

TLP-BB-M



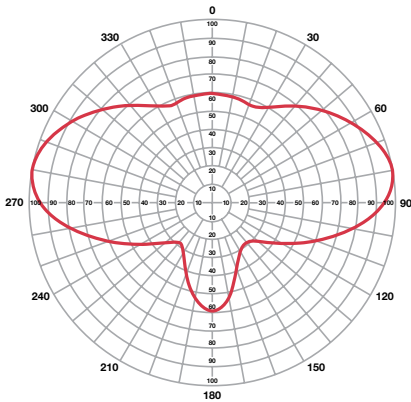
AZIMUTH GAIN: 1.9

TLP-BB-L



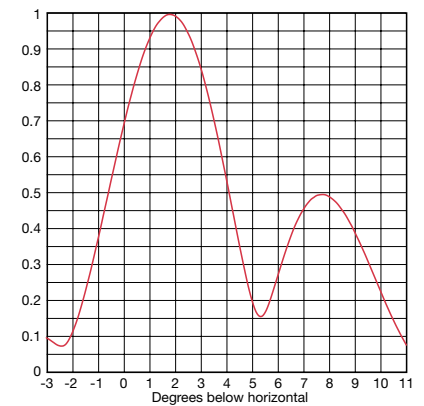
AZIMUTH GAIN: 1.7

TLP-BB-O



AZIMUTH GAIN: 2.2

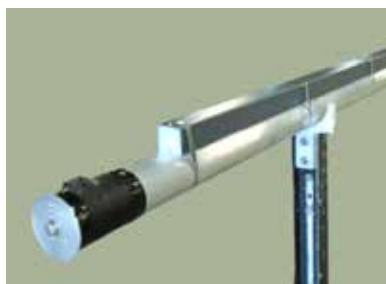
TLP-BB-12



RMS GAIN: 10.0 (9.98 dB)

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

Dielectric's DLP Series antenna is designed specifically as an economical single channel choice for low power TV, DTV, and gap filling. Available in multiple azimuth and elevation gains as well as horizontal, circular or elliptically polarized.



Dielectric Advantages

- Operating Range: 6 MHz band within 470-860 MHz
- Economical single section 4, 6, 8, 10 and 12 bay designs
- Suitable for analog or DTV applications on a channel
- 8 standard azimuth patterns, and custom patterns, available
- 5 standard elevation gains
- Available horizontally, circular and elliptically polarized
- Low VSWR, < 1.1:1 over operating channel
- Slot covers provide environmental protection
- Standard mounting brackets included for 1 1/4" to 4 1/2" OD pipes
- Low weight and windload
- 1 5/8" EIA input
- Survives winds up to 125 mph (56 m/s)

Antenna Specifications

Band	Polarization	VSWR	Input	Power Rating	Beam Tilt
UHF (470-860 MHz)	Horizontal or Elliptical	1.1:1	1 5/8" 50 Ω EIA	2.5 kW average	1.0° nominal

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 elliptical polarization contact factory

Antenna Type	Azimuth Pattern	Length (ft)	Weight (lb)	Wind Area (ft ²)
DLP-4B-4M	B	8.0 to 10.5	35 to 45	3.79 to 6.3
	C		40 to 50	6.18 to 9.75
	D		40 to 55	7.09 to 12.59
	E		40 to 65	10.71 to 20.99
	H		45 to 65	5.91 to 11.5
	I		45 to 65	7.44 to 14.31
	J		45 to 65	9.36 to 18.23
	M		45 to 65	10.53 to 20.62

Antenna Type	Azimuth Pattern	Length (ft)	Weight (lb)	Wind Area (ft ²)
DLP-6B-6M	B	10.8 to 14.6	50 to 65	6.02 to 10.43
	C		55 to 70	9.4 to 14.6
	D		60 to 80	10.52 to 19.39
	E		65 to 95	15.63 to 31.04
	H		65 to 95	9.1 to 18
	I		65 to 95	10.97 to 21.54
	J		65 to 95	10.97 to 26.9
	M		65 to 95	15.36 to 30.49

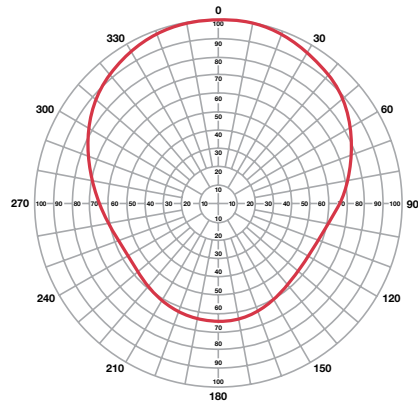
Antenna Type	Azimuth Pattern	Length (ft)	Weight (lb)	Wind Area (ft ²)
DLP-8B-8M	B	13.6 to 18.8	70 to 90	8.66 to 14.21
	C		70 to 90	11.91 to 18.76
	D		80 to 105	14.53 to 27.21
	E		85 to 125	20.57 to 41.21
	H		85 to 125	12.8 to 25.49
	I		85 to 125	15.13 to 30.08
	J		85 to 125	18.32 to 36.61
	M		85 to 125	20.27 to 40.6

Antenna Type	Azimuth Pattern	Length (ft)	Weight (lb)	Wind Area (ft ²)
DLP-10B-10M	B	16.5 to 22.9	85 to 105	10.78 to 17.66
	C		90 to 110	14.39 to 22.91
	D		95 to 130	18.95 to 35.88
	E		110 to 155	26.5 to 53.38
	H		110 to 155	16.89 to 33.78
	I		110 to 155	19.69 to 39.46
	J		110 to 155	23.69 to 47.62
	M		110 to 155	26.12 to 52.61

Antenna Type	Azimuth Pattern	Length (ft)	Weight (lb)	Wind Area (ft ²)
DLP-12B-12M	B	19.3 to 27.1	100 to 465	12.85 to 21.14
	C		105 to 130	16.86 to 27.07
	D		115 to 155	23.77 to 45.39
	E		130 to 190	32.83 to 66.38
	H		130 to 190	21.38 to 42.9
	I		130 to 190	24.67 to 49.68
	J		130 to 190	29.46 to 59.48
	M		130 to 190	32.38 to 65.46

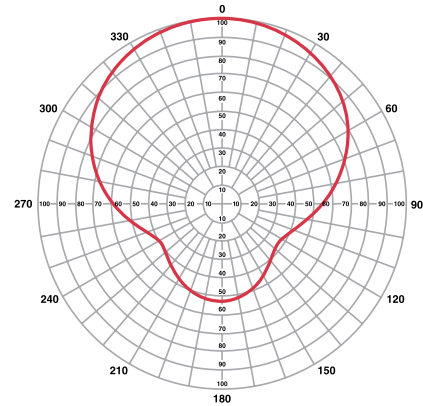
¹ Wind area CAAC per TIA/EIA-222-G

DLP-B



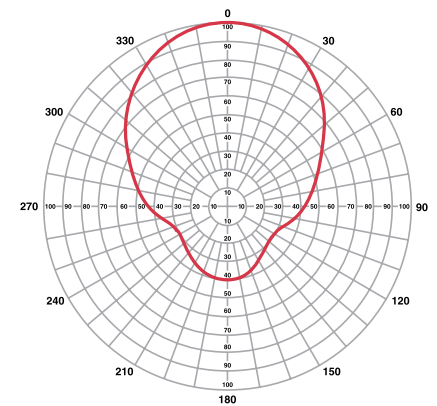
AZIMUTH GAIN: 1.7

DLP-C



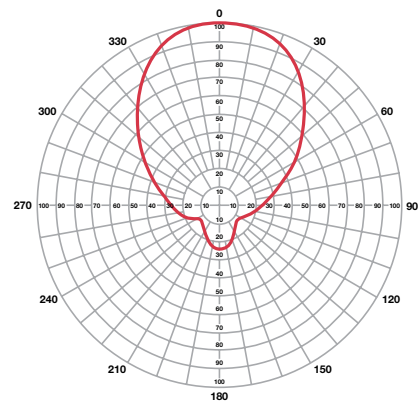
AZIMUTH GAIN: 2.1

DLP-D



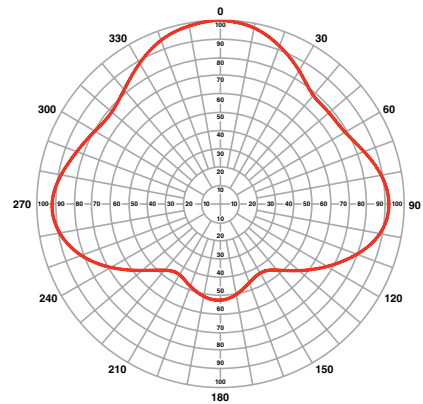
AZIMUTH GAIN: 2.9

DLP-E



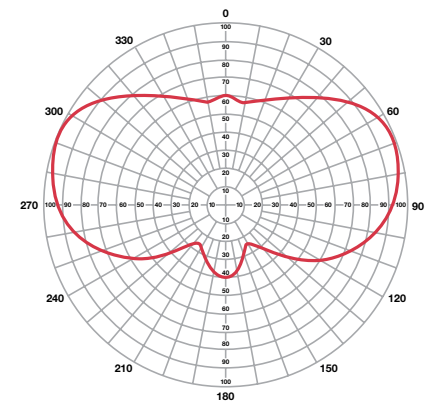
AZIMUTH GAIN: 3.9

DLP-H



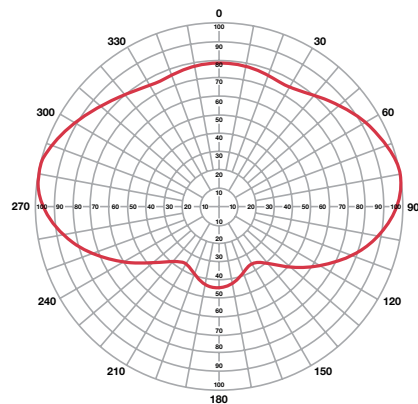
AZIMUTH GAIN: 1.7

DLP-I



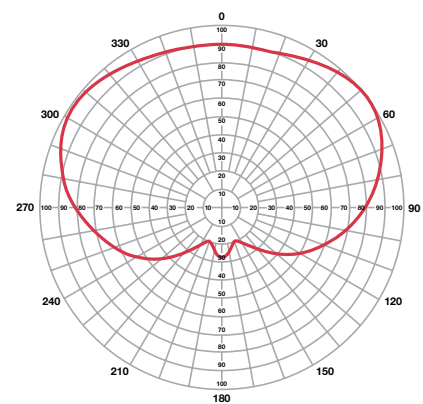
AZIMUTH GAIN: 1.8

DLP-J



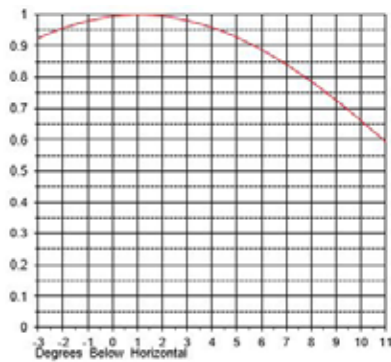
AZIMUTH GAIN: 2.0

DLP-M



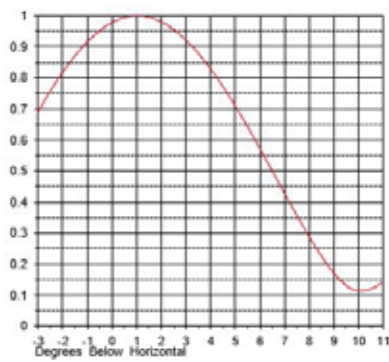
AZIMUTH GAIN: 1.9

DLP-4



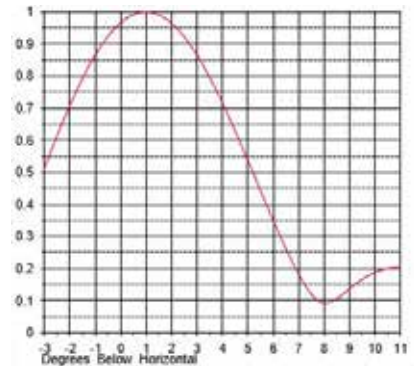
RMS GAIN: 3.6 (5.56 dB)

DLP-6



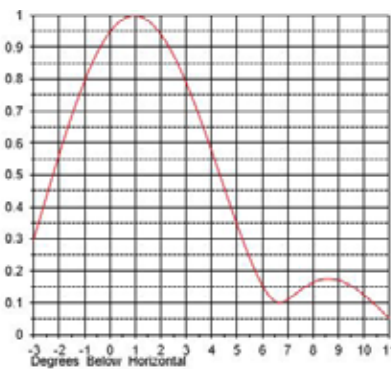
RMS GAIN: 5.9 (7.71 dB)

DLP-8



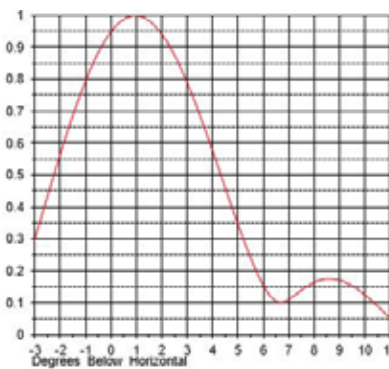
RMS GAIN: 8.1 (9.10 dB)

DLP-10



RMS GAIN: 10.3 (10.13 dB)

DLP-12



RMS GAIN: 12.3 (10.89 dB)

In addition to these standard patterns, we can customize a pattern to meet your specific needs. Please contact us for more information.