

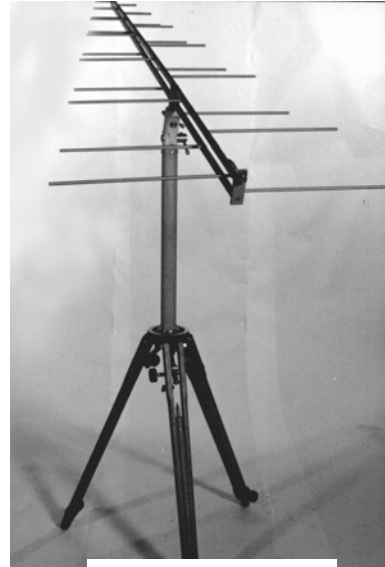
### LINEARLY POLARIZED

**LPD series** antennas are linearly polarized, log periodics designed to transmit and receive signals over a broad frequency range. These antennas are characterized by a high front-to-back ratio, excellent SWR and medium power gain at all frequencies in the band. Polarization adjustment is possible in any plane, with a universal joint.

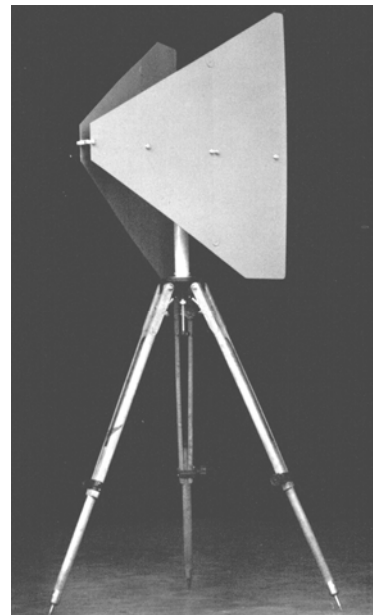
High quality aluminum construction with all stainless steel hardware make for a lightweight, high strength antenna that will provide years of trouble-free operation. For emission testing or low power transmit applications, an assortment of low profile **LPDs** are available. These antennas are constructed on cost-effective copper clad dielectric materials. **LPDs** exhibit the same performance standards as our other antennas, but with cost savings to the customer.

Standard **LPD** antennas are intended for relatively permanent installations. **LPD series** antennas operating below 400 MHz are also supplied in a kit form for storage and transportation. Antennas in the kit form assemble easily with minimum tool requirements.

The Vee configuration, **LPV series** log periodic antennas give greater power gain than that obtainable with a planar log-periodic antenna of the same length and taper. The short length of the **LPV-2010/C** antenna restricts the movement of the active region as a function of frequency to a relatively small volume, which is desirable in RFI measurements.



**LPD-2010/C**



**LPV-2010**

#### SPECIFICATIONS

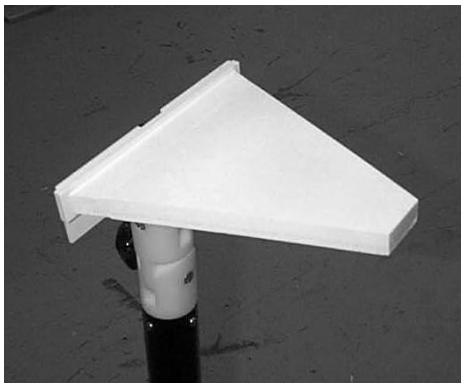
#### ELECTRICAL

Impedance: 50 ohms

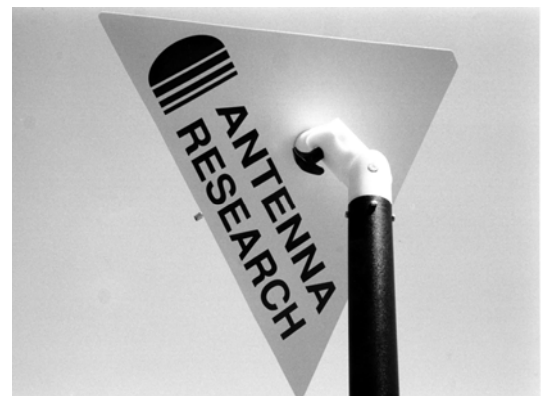
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	FREQUENCY	TYP. GAIN (dBi.)	TYP. FRONT/ BACK (dB)	VSWR	POWER		POLARIZATION
					CW	PEAK	
LPD-2010/C	200 - 1000 MHz	7.5	20	1.5 : 1	1 kW	1.4 kW	Linear
LPV-2010/C	200 - 1000 MHz	7.0	20	2 : 1	100 W	100 W	Linear
LPD-8270	80 - 2700 MHz	6.0	20	2 : 1	2 kW	2.6 kW	Linear
LPD-2027	200 - 2700 MHz	6.0	20	2 : 1	50 W	75 W	Linear
LPD-8130/A1	80 - 1300 MHz	6.0	20	2.5 : 1	1.5 kW	2 kW	Linear
LPD-1011	100 - 1100 MHz	6.0	20	2 : 1	1 kW	1.4 kW	Linear
LPD-2020/A	200 - 2000 MHz	6.5	20	2 : 1	250 W	500 W	Linear
LPD-3500	300 - 5000 MHz	5.0	15	2 : 1	5 W	25 W	Linear
LPD-820/A	750 - 2000 MHz	6.5	20	2 : 1	125 W	300 W	Linear
LPD-118	1.0 - 18.0 GHz	7.0	18	2 : 1	5 W	25 W	Linear

\*Specifications from 35 to 220 MHz



**LPD-118**



**LPD-3500**

#### MECHANICAL

	BOOM LENGTH	WIDTH / HEIGHT	WEIGHT (LBS/KG)	CONSTRUCTION	MOUNTING	CONNECTOR TYPE	KIT **
LPD-2010/C	51"	29"	4/1.8	Aluminum	Center	N Female	Yes
LPV-2010/C	27"	15"/29"	8/3.6	Copper Clad	End	BNC - F	N/A
LPD-8270	67"	82.5"	4"	Aluminum	Center	N Female	Yes
LPD-2027	34"	4 / 27.5	2.5 / 1.1	Aluminum	Center	N Female	N/A
LPD-8130/A1	64"	77"	15 / 7	Aluminum	Center	N Female	N/A
LPD-1011	60"	60"	7.6 / 3.5	Aluminum	Center	N Female	Yes
LPD-2020/A	45"	30"	4 / 1.8	Aluminum	Center	N Female	N/A
LPD-3500	16.5"	20"	1.0 / .45	Copper Clad	Center	SMA Female	N/A
LPD-820/A	10"	7.5" / 7.5"	4 / 1.8	Aluminum	End	BNC - F	N/A
LPD-118	9"	8"	1 / .45	Copper Clad	End	SMA Female	N/A

\*\* For ordering in kit form, add a subscript "K" at the end of the model number

## LOG PERIODIC DIPOLES 20 MHz - 18 GHz TRANSMIT - RECEIVE

### LPD-3500

Antenna Factor, Gain and Power required for 10 V/m field strength at 1 m

Frequency (GHz)	AFE (dB m <sup>-1</sup> )	Gain (dBi)	Power (Watts)
0.3	15.2	4.6	1.16
0.4	16.2	6.1	.80
0.5	18.5	5.7	.90
0.6	19.8	6.0	.84
0.7	21.2	5.9	.86
0.85	22.5	6.3	.78
1.0	24.1	6.1	.82
2.0	32.2	4.1	1.29
3.0	35.5	4.3	1.24
4.0	35.9	6.4	.76
5.0	39.4	4.8	1.10

### LPD-1011

Antenna Factor, Gain and Power required for 10 V/m field strength at 1 m

Frequency (MHz)	AFE (dB m <sup>-1</sup> )	Gain (dBi)	Power (Watts)
100	5.2	5.0	1.05
200	9.8	6.4	.75
250	9.9	8.3	.49
300	12.3	7.5	.60
400	15.6	6.7	.72
500	16.2	8.0	.53
600	17.8	8.0	.53
700	20.3	6.8	.69
850	22.2	6.6	.73
1000	23.1	7.1	.65

### LPD-118

Antenna Factor, Gain and Power required for 10 V/m field strength at 1 m

Frequency (GHz)	AFE (dB m <sup>-1</sup> )	Gain (dBi)	Power (Watts)
1	23.4	6.7	.69
2	31.2	5.0	1.04
3	33.8	6.0	.84
4	34.3	8.0	.53
5	37.1	7.2	.65
6	37.2	8.6	.46
7	38.9	8.2	.50
8	40.1	8.2	.51
9	39.7	9.6	.36
10	40.9	9.3	.39
11	42.5	8.6	.46
12	43.3	7.9	.47
13	44.7	7.8	.55
14	44.1	9.0	.41
15	45.3	8.5	.48
16	45.5	8.8	.44
17	47.3	7.6	.59
18	50.5	4.9	1.09

### LPD-2010/C

Antenna Factor, Gain and Power required for 10 V/m field strength at 3 m

Frequency (MHz)	AFE (dB m <sup>-1</sup> )	Gain (dBi)	Power (Watts)
200	9.0	7.2	5.7
250	10.5	7.6	5.1
300	11.6	8.1	4.6
400	13.9	8.3	4.4
500	15.5	8.7	4.0
600	17.3	8.4	4.2
700	19.2	7.9	4.8
850	20.1	8.7	4.0
1000	22.4	7.8	4.9

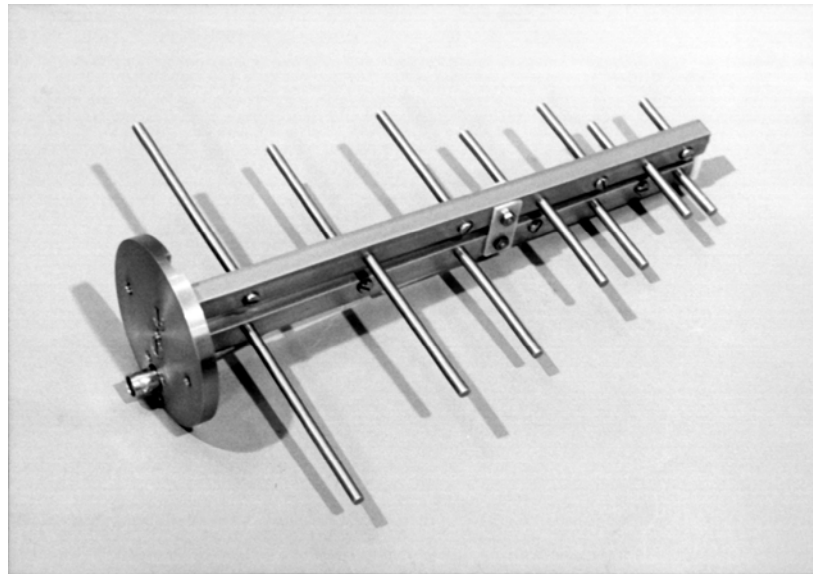


The **LPD series universal joint** allows for the polarization and tilt adjustments of **LPD series** antennas.

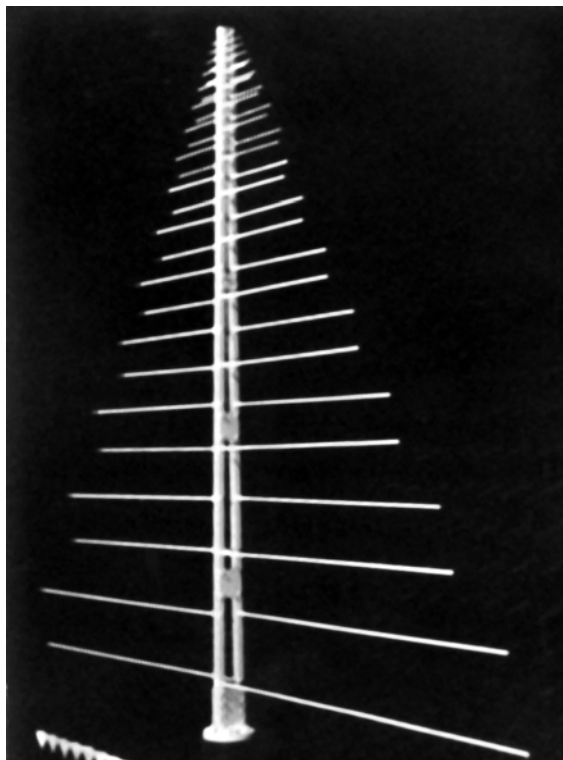
### LPD SERIES UNIVERSAL JOINT

## LOG PERIODIC DIPOLES TRANSMIT - RECEIVE

LPD-8130/A1		
TYPICAL ANTENNA FACTOR AND GAIN		
FREQUENCY (MHz)	AFE (dBi M <sup>-1</sup> )	GAIN (dBi)
80	2.4	5.9
100	3.8	6.4
150	7.3	6.5
200	9.5	6.8
250	11.2	7.0
300	12.5	7.3
400	14.8	7.5
500	16.1	8.1
600	18.0	7.8
700	19.9	7.2
850	20.7	8.1
1000	21.5	8.7
1100	23.4	7.7
1200	24.4	7.4
1300	26.1	6.4



**LPD-820/A**



**LPD-8130/A1**

TYPICAL E-FIELD ANTENNA FACTOR AND GAIN				
FREQUENCY (MHz)	MODEL LPD-820/A		MODEL LPD-2020	
	AFE (dB M <sup>-1</sup> )	GAIN (dBi)	AFE (dB M <sup>-1</sup> )	GAIN (dBi)
200			9.6	6.7
250			11.2	7.0
300			12.7	7.1
400			14.8	7.5
500			16.2	8.0
600			17.6	8.2
700			19.7	7.4
850	21.0	7.8	21.0	7.8
1000	22.5	7.7	22.5	7.7
1100	23.6	7.5	23.6	7.5
1200	25.6	6.2	25.6	6.2
1300	26.4	6.1	26.4	6.1
1400	26.3	6.9	26.3	6.9
1500	26.5	7.3	26.5	7.3
1600	27.8	6.5	27.8	6.5
1700	28.2	6.6	28.2	6.6
1800	29.0	6.3	29.0	6.3
1900	29.9	5.9	29.9	5.9
2000	31.7	4.6	31.7	4.6