



LOG PERIODIC DIPOLES 20 MHz - 18 GHz TRANSMIT - RECEIVE

SPECIFICATIONS

ELECTRICAL

Impedance: 50 ohms

INDIVIDUALLY CALIBRATED

	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



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LPD-3500 Antenna Factor, Gain and Power required for 10 V/m field strength at 1 m			
Frequency (GHz)	AFE (dB m ⁻¹)	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 ⁻¹)	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 ⁻¹)	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 ⁻¹)	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

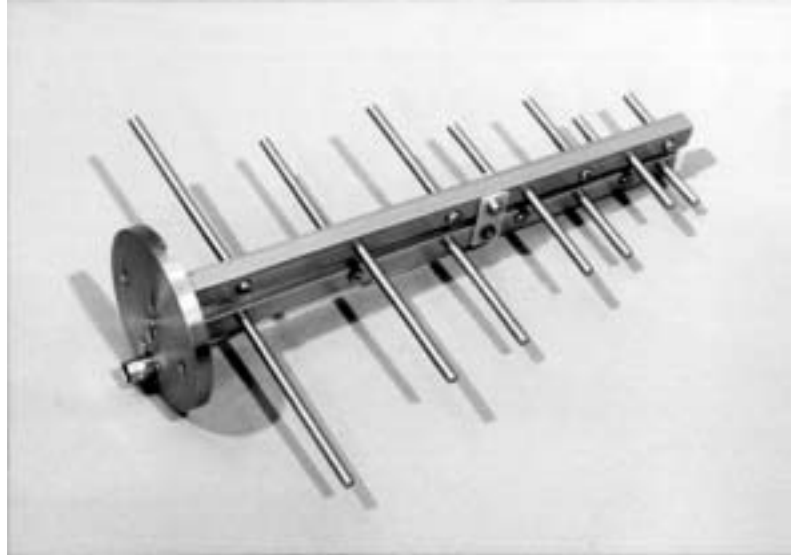


The **LPD series universal joint** allows for the polarization and tilt adjustments of **LPD series** antennas.

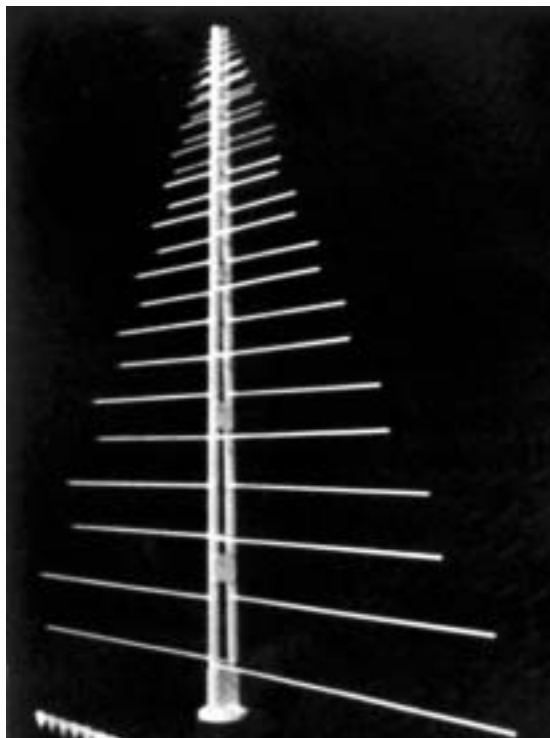
LPD SERIES UNIVERSAL JOINT

LOG PERIODIC DIPOLES TRANSMIT - RECEIVE

LPD-8130/A1		
TYPICAL ANTENNA FACTOR AND GAIN		
FREQUENCY (MHz)	A.F.E. (dBi M⁻¹)	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	
	A.F.E. (dB M⁻¹)	GAIN (dBi)	A.F.E. (dB M⁻¹)	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



LOG PERIODIC DIPOLES HIGH POWER, HIGH FIELDS

Two different models are available for generating high fields below 50 MHz. **LPD-220s** are designed to operate from 20 MHz to 200 MHz. The **LPD-220/A10** and **LPD-220/A5** can handle input powers up to 10 KW and 5 KW, respectively.

The rear elements of the **LPD-220s** are truncated and loaded to reduce the overall size of the antenna. Loaded elements at the low end simulate the gain of a full size log periodic antenna. A wheeled pedestal is supplied to move this large antenna from one place to another. Antenna polarization may be adjusted manually or remotely using an optional pedestal, model **AS-220/T**.



LPD-220/A5

SPECIFICATION

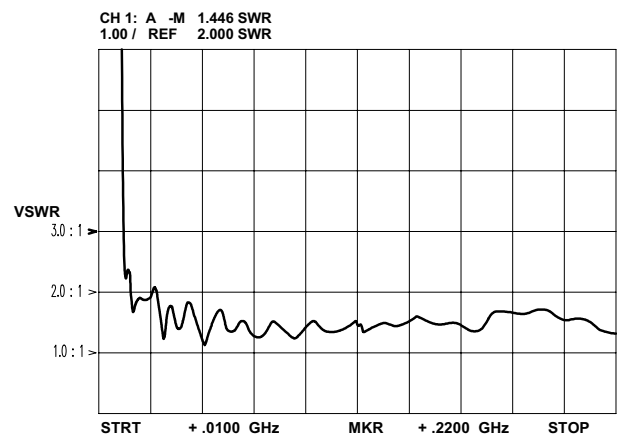
INPUT IMPEDANCE: 50 ohms

VSWR: 3.5:1

	LPD-220/A10	LPD-220/A5**
FREQUENCY	20-200 MHz	20-220 MHz
GAIN (dBi)	6.0*	6.0*
POWER (kW)	10	5
BOOM LENGTH	153"	153"
WIDTH	140"	136"
HEIGHT	56"	56"
CONNECTOR	EIA 1-5/8"	SC Female

- * Specifications from 35 to 220 MHz
- ** For 2kW power rating, order Model **LPD-220/A2**

LPD-220/A5 - Typical VSWR



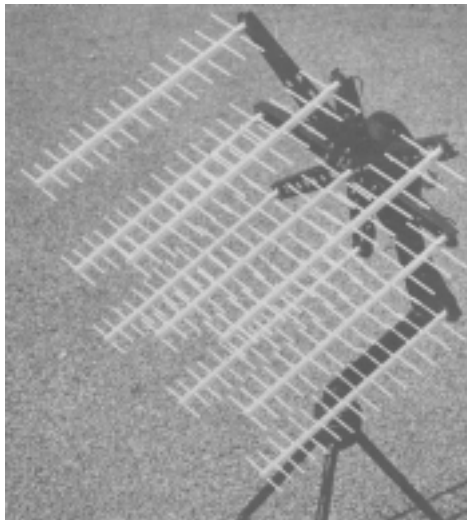


LOG PERIODIC DIPOLE ARRAYS

LPA series antennas are log periodic dipole arrays comprising of two or more log periodic dipole antenna elements. All **LPAs** are designed for medium to high gain and high cross-polar rejection. These antennas are ideally suited for generating high fields required for immunity testing.

Two-element log periodic dipole arrays, such as the **LPA-8200**, **LPA-2201**, and **LPA-2020**, offer flat gain over a large bandwidth and low VSWR similar to the performance of an ordinary log periodic dipole antenna. This is extremely useful in generating maximum field strength uniformly over a large test area. A two-element array has 2 to 3 dB higher gain relative to an ordinary log periodic dipole antenna. All two element arrays are optimized for identical beamwidths in both E and H-planes.

The **LPA-2020/A3** is supplied with a 7/16 connector to handle high input power levels in excess of 3 kW.



LPA-820/8



LPA-2201/A2

**WITH ADJUSTABLE HEIGHT MAST
AND POLARIZATION ADJUSTMENT**

SPECIFICATIONS

IMPEDANCE: 50 OHMS, NOMINAL

VSWR: 2 : 1

CONSTRUCTION: ALUMINUM

F/B RATIO: 20 DB MINIMUM

CONNECTOR: N FEMALE

MODEL	FREQUENCY (MHz)	GAIN (dBi)	POWER CW	DIMENSIONS L x W x H	MOUNTING	WEIGHT (LBS/KG)
LPA-8200	80 - 2000	9	2 kW	88" x 90" x 75"	Rear	36 / 16
LPA-2020/A3	200-2000	9-10	3 kW	38" x 36" x 38"	Rear	12 / 6
LPA-2201/A1	220 - 1000	12	1 kW	58" x 30" x 33"	Rear	20 / 9
LPA-2201/A2	220 - 1000	12	2 kW	58" x 30" x 33"	Rear	20 / 9
LPA-820/8	800 - 2000	16 - 19	500 W	24" x 40" x 40"	Rear	30 / 14



LOG PERIODIC DIPOLES DUAL POLARIZED

DUAL POLARIZED

LPC series antennas are comprised of two planar log periodic structures on a common axis. Standard LPC antennas are supplied with two output connectors. Switch assemblies and switch control units are available for use with LPC antennas to yield vertical, horizontal, right circular, or left circular polarizations. These antennas are characterized by a high front-to-back ratio, excellent SWR, and medium power gain at all frequencies in the band.

SPECIFICATIONS

IMPEDANCE: 50 OHMS, NOMINAL
VSWR: 2 : 1 TYPICAL

F/B RATIO: 20 dB
MINIMUM ISOLATION: 20 dB

POLARIZATION: DUAL

MODEL	FREQUENCY (MHz)	GAIN (dB)	POWER CW	WEIGHT (LBS/KG)	CONNECTOR	DIMENSIONS L x W x H
LPC-3100/C	30 - 1000	6.0	500 W	110 / 50	N female	210" x 200" x 200"
LPC-3540	35 - 400	5.0	10,000 W	320 / 160	82 G female	204" x 168" x 208" **
LPC-8100/C	80 - 1000	6.5	1 kW	28 / 12.6	N female	88" x 75" x 75"
LPC-2010/C	200 - 1000	6.0	1 kW	10 / 4.5	N female	50" x 30" x 30"
LPC-2020/C*	200 - 2000	6.0	200 W	14 / 6.5	N female	50" x 30" x 30"
LPC-560*	500 - 6000	6.0	40 W	3 / 2	SMA female	21" x 12" x 12"
LPC-820/C*	800 - 2000	8.0	125 W	9 / 4.0	BNC female	12" x 8" x 8"

* A Radome is available for outdoor installation.

** Height with Mast



LPC-3100



LPC-2010/C



LPC-3540/C



LPC-8100 & LPC-560

LPC-8100/C - TYPICAL E-FIELD ANTENNA FACTOR AND GAIN

FREQUENCY (MHz)	80	90	100	200	250	300	400	500	600	700	850	1000
AFE (dBm ⁻¹)	1.4	2	3.1	9.0	11.1	12.5	15.9	15.5	17.8	20.2	22.1	23.0
GAIN (DBi)	6.9	7.3	7.1	7.2	7.1	7.3	6.4	8.7	8.0	6.9	6.7	7.2