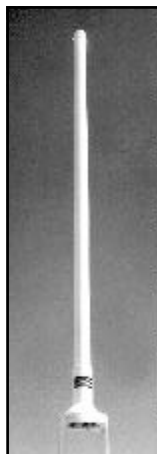


DPV-35/77

- COLLINEAR
- HIGH GAIN
- VHF/UHF FREQUENCY RANGE
- MULTIPLE BAND

DPV-77 Distance Measuring Antenna

The DPV-77 is an omnidirectional UHF antenna designed for ground-to-air line-of-sight circuits used with distance measuring equipment (DME) systems. The antenna is vertically polarized, has an instantaneous bandwidth of 960 to 1215 MHz and has a 3000 watt peak power capacity.



Applications

Antenna Products' collinear antennas are designed for ground-to-air and point-to-point communications.

Features

The collinear antennas are available in various configurations with one or more vertically polarized, omnidirectional dipoles integrated into one enclosure. From one to three inputs are available in various combinations covering the common UHF, VHF and other frequency bands. The antennas are constructed using dipoles that are a half wavelength at the midband frequency. Typical performance of these antennas exhibit gains between 0 dBi and 2 dBi. The power gain values identified in the table below are minimum values with the antennas typically performing in excess of those stated. Antenna Products will provide detailed performance on request. Higher gain single band versions are also available.

Characteristics

In multiple input antennas, the dipole elements are mounted one above the other on a common axis. These dipoles are sealed in a single fiberglass radome that

Model	Number of Inputs	Frequency Range	Maximum VSWR	Input Impedance	Maximum Power	Azimuth Patterns	Minimum Elevation Beam Width	Elevation Beam Maximum Location	Minimum Power Gain	Minimum Isolation	Operational Conditions	Ship Weight (lbs)	Length	Radome Diameter
DPV-35	1	118—136	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	N/A	100 mph with ½" radial ice	4.5	51.5"	2.35"
DPV-35A	1	100—156	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	N/A	100 mph with ½" radial ice	10	62.5"	3.25"
DPV-36	2	118—136 118—136	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with ½" radial ice	14	142.25"	2.35"
DPV-36A	2	100—156 100—156	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with ½" radial ice	22	158"	3.25"
DPV-36B	2	118—136 118—136	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	175 mph with ½" radial ice	35	149.5"	4.63"
DPV-37	1	225—400	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	N/A	100 mph with ½" radial ice	3.5	40.5"	2.35"
DPV-38	2	225—400 225—400	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB Min	100 mph with ½" radial ice	9.5	92"	2.35"
DPV-39	2	225—400 118—136	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with ½" radial ice	9.5	94"	2.35"
DPV-39A	2	100—156 225—400	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with ½" radial ice	16	99.75"	3.25"
DPV-40	1	118—136	2:1	50 Ohms	100 Watts	Omni ± 1dB	40°	Horizon ± 10°	4 dBi	N/A	100 mph with ½" radial ice	11	133.75"	2.35"
DPV-40B	1	100—156	2:1	50 Ohms	100 Watts	Omni ± 1dB	30°	Horizon ± 10°	4 dBi	N/A	100 mph with ½" radial ice	32	127.5"	5"
DPV-46	3	100—156 225—400 225—400	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with ½" radial ice	24.5	148.75"	3.25"
DPV-46B	3	100—156 225—400 225—400	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	150 mph with ½" radial ice	26	148.75"	3.25"
DPV-49	1	1700—1860	1.5:1	50 Ohms	100 Watts	Omni ± 1dB	18°	Horizon ± 10°	6 dBi	N/A	65 mph with ½" radial ice	1.25	24"	1.5"
DPV-50B	3	100—156 225—400 225—400	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	150 mph with ½" radial ice	40	163.5"	4.75"

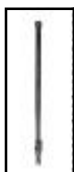
DPV-35/77

- COLLINEAR
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- MULTIPLE BAND

provides both mechanical stability and environmental protection. Each input is isolated 30 dB from any other input. Isolation in excess of 30 dB may be provided on a case-by-case basis. Each of the multiple dipoles are matched to 50 Ohms and operate independently of any of the other dipoles. All antenna parts are at DC ground potential. These collinear antennas are lightweight, rugged, and weatherproof. They are constructed of corrosion-resistant materials and contain no exposed dissimilar metal joints. The antennas are supplied with mating coaxial connector and mounting hardware to secure the antenna to a support pole.

Equipment Supplied

Mating RF connector and a base adapter to mount on 1-1/4" or 2-1/2" IPS pipe.



DPV-49 Packet Radio Antenna.

The DPV-49 is a lightweight, compact, high performance antenna. It provides a vertically polarized, omnidirectional azimuth pattern with 6 dBi of gain and operates over the frequency range of 1700 to 1860 MHz. It mounts directly on the packet radio and has a spring-loaded base to accommodate rough handling in a tactical environment.



Antenna Products Collinears

The collinear antennas are available in various configurations with one or more vertically polarized, omnidirectional dipoles integrated into one enclosure.

Model	Number of Inputs	Frequency Range	Maximum VSWR	Input Impedance	Maximum Power	Azimuth Patterns	Minimum Elevation Beam Width	Elevation Beam Maximum Location	Minimum Power Gain	Minimum Isolation	Operational Conditions	Ship Weight (lbs)	Length	Radome Diameter
DPV-51	1	225—400	2:1	50 Ohms	100 Watts	Omni ± 1dB	35°	Horizon ± 10°	4 dBi	N/A	100 mph with 1/2" radial ice	10.75	77.5"	2.35"
DPV-54	1	400—500	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	N/A	100 mph with 1/2" radial ice	4	24"	2.35"
DPV-55	2	400—500 400—500	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with 1/2" radial ice	10	60"	2.35"
DPV-56	1	400—500	2:1	50 Ohms	100 Watts	Omni ± 1dB	30°	Horizon ± 10°	3 dBi	N/A	100 mph with 1/2" radial ice	10	60"	2.35"
DPV-60	3	225—400 225—400 225—400	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with 1/2" radial ice	22	136"	3.25"
DPV-64	1	147—174	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	N/A	115 mph with 1/2" radial ice	5.5	48.5"	2.35"
DPV-65	1	147—174	2:1	50 Ohms	100 Watts	Omni ± 1dB	30°	Horizon ± 10°	3 dBi	N/A	115 mph with 1/2" radial ice	14	112"	2.35"
DPV-68	3	116—150 225—400 116—150	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	25 dB	100 mph with 1/2" radial ice	16.5	140"	2.38"
DPV-69	3	116—150 225—400 116—150	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with 1/2" radial ice	20	161"	2.38"
DPV-70	3	116—150 225—400 116—250	3:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with 1/2" radial ice	18.5	168"	2.9"
DPV-71	2	145—175 145—175	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with 1/2" radial ice	13	112"	2.35"
DPV-71M	2	135-175 135-175	2:1	50 Ohms	100 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	30 dB	100 mph with 1/2" radial ice	13	112"	2.35"
DPV-74	1	400—625	1.7:1	50 Ohms	3200 Watts	Omni ± 1dB	65°	Horizon ± 10°	0 dBi	N/A	140 mph with 1/2" radial ice	15	27"	13"
DPV-75	1	960—1215	2:1	50 Ohms	250 Watts	Omni ± 1dB	6°	Horizon ± 1°	8 dBi	N/A	100 mph with 1/2" radial ice	8	74"	3"
DPV-77	1	960—1215	2:1	50 Ohms	290 Watts	Omni ± 1dB	6°	+ 4° ± 1°	8 dBi	N/A	100 mph with 1/2" radial ice	8	79"	2.43"

- 1) All single dipole antennas (except DPV-74, -75 and -77) mount to a 1-1/4" or 2-1/2" IPS pipe, all dual or triple dipole antennas mount to a 2-1/2" IPS pipe only. Mounting information on DPV-74, -75 and -77 can be found on their respective pages in the catalog.
- 2) UG-1185 mating coaxial connectors and mounting hardware are supplied with every antenna.

(Maximum shipping length 115 inches)