

APPLICATIONS

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

DPV-36 VHF Dual Band Antenna



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 maximum 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.



Model	Number of Inputs	Frequency Range	Maximum VSWR	Input Impedance	Maximum Power	Azimuth Patterns	Minimum Elevation Beam Width	Elevation Beam Maximum Location	Gain	Minimum Isolation	Operational Conditions	Ship Weight (lbs)	Length	Radome Diameter
DPV-35	1	118—137	2:1	50 Ohms	350 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	N/A	100 mph with ½" radial ice	4.5	51.5"	2.35"
DPV-35I Arctic Black	1	118—137	2:1	50 Ohms	350 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	N/A	100 mph with ½" radial ice	4.5	51.5"	2.35"
DPV-35A	1	100—156	2:1	50 Ohms	350 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	N/A	100 mph with ½" radial ice	10	62.5"	3.25"
DPV-36	2	118—137 118—137	2:1	50 Ohms	350 Watts	Omni	65°	Horizon ±10°	2 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	350 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	100 mph with ½" radial ice	22	158"	3.25"
DPV-36B	2	118—137 118—137	2:1	50 Ohms	350 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	175 mph with ½" radial ice	35	149.5"	4.63"
DPV-37	1	225—400	2:1	50 Ohms	250 Watts	Omni ±1dB	65°	Horizon ±10°	2 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	250 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB Min	100 mph with ½" radial ice	9.5	92"	2.35"
DPV-39	2	225—400 118—137	2:1	50 Ohms	VHF 350 Watts UHF 250 Watts	Omni ±1dB	65°	Horizon ±10°	2 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	VHF 350 Watts UHF 250 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	100 mph with ½" radial ice	16	99.75"	3.25"
DPV-40	1	118—137	2:1	50 Ohms	350 Watts	Omni ±1dB	40°	Horizon ±10°	5 dBi	N/A	100 mph with ½" radial ice	11	133.75"	2.35"
DPV-40B	1	100—156	2:1	50 Ohms	350 Watts	Omni ±1dB	30°	Horizon ±10°	5 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	VHF 350 Watts UHF 250 Watts	Omni ±1dB	65°	Horizon ±10°	2 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	VHF 350 Watts UHF 250 Watts	Omni ±1dB	65°	Horizon ±10°	2 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	VHF 350 Watts UHF 250 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	150 mph with ½" radial ice	40	163.5"	4.75"

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 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.*

* Mating RF connector and base adaptor supplied for single input models only.

DPV-36 VHF Dual Band Antenna

Antenna ProductsCollinears

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	Gain	Minimum Isolation	Operational Conditions	Ship Weight (lbs)	Length	Radome Diameter
DPV-51	1	225—400	2:1	50 Ohms	250 Watts	Omni ±1dB	35°	Horizon ±10°	5 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	250 Watts	Omni ±1dB	65°	Horizon ±10°	2 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	250 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	100 mph with 1/2" radial ice	10	60"	2.35"
DPV-56	1	400—500	2:1	50 Ohms	250 Watts	Omni ±1dB	30°	Horizon ±10°	5 dBi	N/A	100 mph with 1/2" radial ice	10	55"	2.35"
DPV-60	3	225—400 225—400 225—400	2:1	50 Ohms	250 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	100 mph with 1/2" radial ice	22	136"	3.25"
DPV-64	1	147—174	2:1	50 Ohms	350 Watts	Omni ±1dB	65°	Horizon ±10°	2 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	350 Watts	Omni ±1dB	30°	Horizon ±10°	5 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	VHF 350 Watts UHF 250 Watts	Omni ±1dB	65°	Horizon ±10°	2 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	VHF 350 Watts UHF 250 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	100 mph with 1/2" radial ice	20	161"	2.38"
DPV-71	2	145—175 145—175	2:1	50 Ohms	350 Watts	Omni ±1dB	65°	Horizon ±10°	2 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	350 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	100 mph with 1/2" radial ice	13	112"	2.35"
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"
DME-960	1	960-1215	1:8:1	50 Ohms	5kW	Omni ±1dB	6°	Horizon ±3.5°	9.5 dBi	N/A	100 mph with 1/2" radial ice	10	77.5"	2.43"

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DPV-108 Omni-Directional Antenna



Model	Number of Inputs	Frequency Range	Maximum VSWR	Input Impedance	Maximum Power	Azimuth Patterns	Minimum Elevation Beam Width	Elevation Beam Maximum Location	Gain	Minimum Isolation	Operational Conditions	Ship Weight (lbs)	Length	Radome Diameter
DPV-78	2	116—152 148—174	2.0:1	50 Ohms	100 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi	30 dB	100 mph with ½" radial ice	4.5	137"	2.5"
DPV-108	1	1750-1850	1.5:1	50 Ohms	200 Watts	Omni ±1dB	7°	Horizon ±1-2°	10 dBi		120 mph no ice	22	48"	1.5"
DPV-108A	1	1750-1850	1.5:1	50 Ohms	200 Watts	Omni ±1dB	7°	Horizon ±1-2°	10 dBi		120 mph with 1" radial ice	35	52.25"	2.375"
DPV-110	1	2200-2400	1.5:1 typ	50 Ohms	200 Watts	Omni ±1dB	7°	Horizon ±1-2°	10 dBi		120 mph no ice	3.5	40"	1.5"
DPV-110A	1	2200-2400	1.5:1 typ	50 Ohms	200 Watts	Omni ±1dB	7°	Horizon ±1-2°	10 dBi		120 mph with 1" radial ice	9.5	48"	2.375"
DPV-112	2	136-174 225-400	2.0:1	50 Ohms	100 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi each	30 dB	100 mph with ½" radial ice	9.5	94"	2.35"
DPV-113	1	30-50	2.0:1	50 Ohms	100 Watts	Omni ±1dB	65°	Horizon ±10°	2 dBi		100 mph with ½" radial ice	16	144"	2.35"



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