



The MULDIPOL™ Multiple Dipole Collinear Array concept has been specifically developed by TACO for ground-air-ground, air traffic control and associated vehicular and base communications applications. This omni directional concept employs a unique method of shielding the feed cables to improve radiation pattern characteristics. The MULDIPOL™ also has a high degree of isolation between discrete elements within a closely spaced array. The result is a small, rugged, easy to install antenna. The lightweight and compact design minimizes space and lends itself to tactical transportable use in the most hostile environments. A minimum of 30 dB isolation is realized between any two antenna elements in every MULDIPOL™ model. The low profile of this antenna plus the resulting decrease in the number of antennas required at any tower site also gives a much improved radiation pattern coverage.

## Features

- Rugged lightweight construction • Transportable
- Compact • Combination of UHF and VHF
- High isolation between antenna elements
- Metallic Base (Fibreglass Base optional - see D4000 series)
- DC Grounded Dipoles (No DC Ground optional - see D4000 series)

## Specifications

### Environmental

- Built to Military standards
- Rain, salt-fog, sand, dust and fungus to MIL-STD. 810A & B
- Temperature, barometric pressure and humidity to MIL-STD. 210 & 210A

### Electrical

- Isolation (min.) 30.0 dB
- Polarization Vertical
- Omni Directional:  $\pm 1.0$  Uniformity (azimuth)
- VSWR (max.) 2:1
- Terminals "N" Female
- Terminal Impedance 50 Ohms
- Applied Power 100 W
- Vertical Beam Deviation  $\pm 10^\circ$

## Operation

The process employed in the TACO antennas incorporates the patented MULDIPOL™ concept. The utilization of this technique results in a unit which has excellent "broadband" halfwave dipole characteristics over the entire operating frequencies. The desired "figure eight" radiation pattern is generally constant throughout the band. Through "broadband" suppression of extraneous currents upon the transmission line, the undesirable "Clover Leaf" pattern is avoided.

## TACO Air Traffic Control FAA Antennas World Wide Use

MODEL	VHF (MHz)	UHF (MHz)	GAIN (dBic)	# OF OUTPUTS	HPBW DEGREE	MOUNTING DIAMETER	LENGTH INCHES	LENGTH CM	WEIGHT LBS	WEIGHT KG	COLOR	WIND LOAD WITH .5 ICE AREA (sq.ft.)
	118-136	225-400										
D5061A1	XX		4.0	1	40	2.5" IPS	125.5	318.75	19.0	8.64	White	2.1
D5062A		XX	4.0	1	40	2.5" IPS <sup>Ⓢ</sup>	65.0	165.0	13.5	6.14	White	1.1
D5071	X	XX	1.0	3	75	2.5" IPS	115.50	293.37	16.8	7.63	White	1.8
D5072	XX		1.0	2	75	2.5" IPS	150.0	381.0	18.0	8.18	White	2.3
D5073	X	X	1.0	2	75	2.5" IPS	84.0	213.50	12.0	5.46	White	1.3
D5074		XX	1.0	2	75	2.5" IPS	85.0	216.0	12.0	5.46	White	1.3
D5076	X		1.0	1	75	2.5" IPS <sup>Ⓢ</sup>	51.0	130.0	6.0	2.73	White	0.7
D5077		X	1.0	1	75	2.5" IPS <sup>Ⓢ</sup>	31.5	80.0	4.75	2.16	White	0.4
D5078		XXX	1.0	3	75	2.5" IPS	115.50	293.37	16.8	7.63	White	1.8

X – Denotes number of active elements      <sup>Ⓢ</sup> 1.25 inch (3.175 cm) IPS Pipe Mount with Optional Adapter. (2.5 inch IPS = 6.35 cm IPS)

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