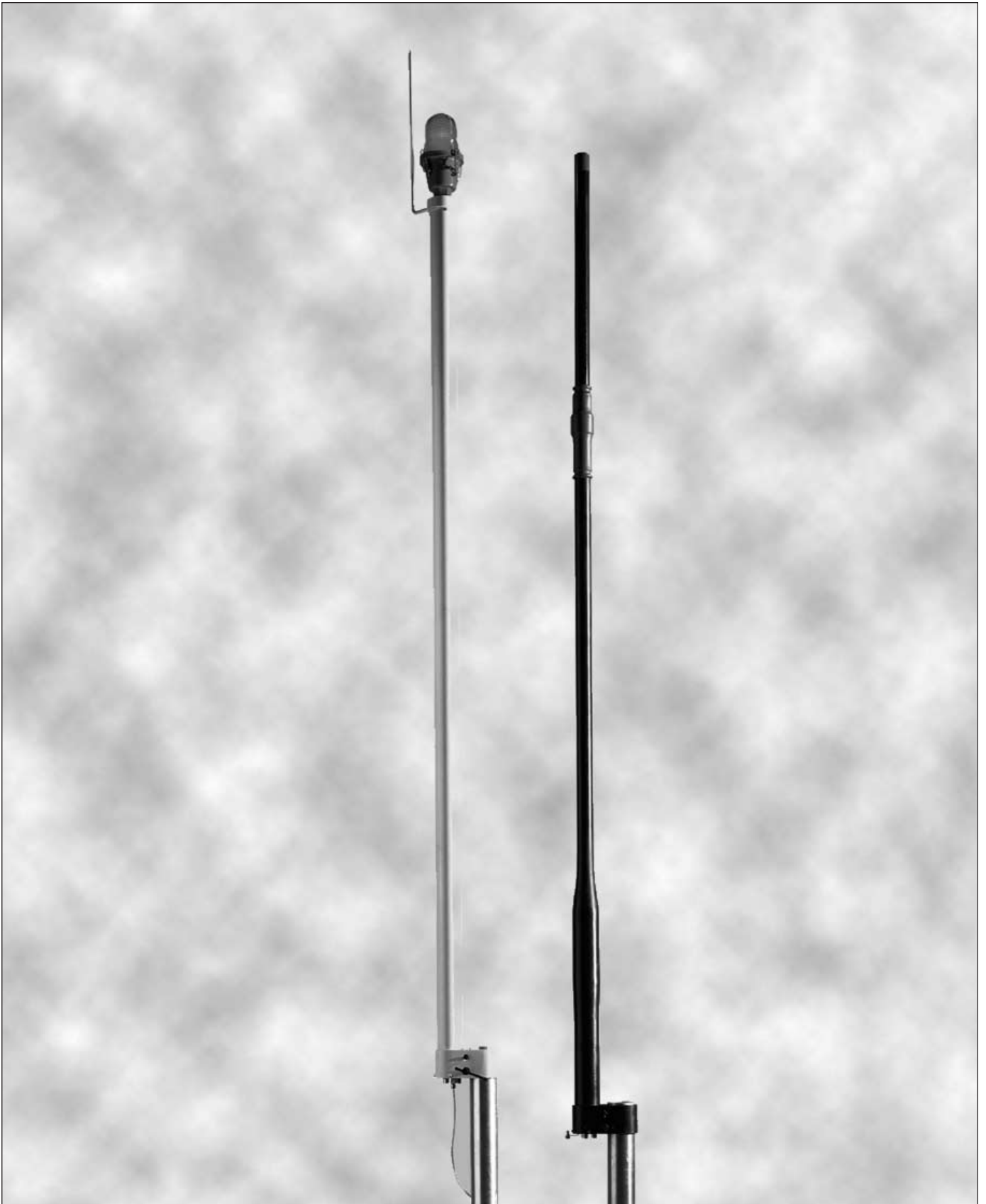


# TACO

## Muldipol Military Antennas

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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 silhouette 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

## Miscellaneous Options

- Connector Dust Covers
- Various grounding configurations
- Various connector types
- Special colors
- Most models can be adapted to lightning rod and/or obstruction lamp applications.

## 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  $\pm 10^\circ$  (horizon)

## 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.

By design, the outer conductors of both halves of each dipole are at the same DC ground potential. A ground is provided at the base of each antenna for supplemental grounding capability.



# Muldipol Military Antennas

## TACO Air Traffic Control Muldipol 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.)
	116-150	118-136	150-174	225-400	400-470	400-500										
D2118	X			XX			1.0	3	75	1	114.25	290.20	12.5	5.67	Green	1.5
D2212	XX						1.0	2	75	1	152.25	386.71	12.5	5.67	Green	2.0
D2212A			XX				1.0	2	75	1	152.25	386.71	12.5	5.67	Green	2.0
D2213	X			X			1.0	2	75	1	84.25	214.0	10.0	4.54	Green	1.3
D2214				XX			1.0	2	75	1	84.25	214.0	10.0	4.54	Green	1.3
D2216	X						1.0	1	75	2	54.50	138.43	5.5	2.49	Green	0.7
D2217				X			1.0	1	75	2	32.25	81.91	4.0	1.81	Green	0.4
D2218	XX			X			1.0	3	75	1	168.25	427.35	16.5	7.48	Green	2.2
D2218A	XX			X			1.0	3	75	1	168.25	427.35	16.5	7.48	2 Piece Green	2.2
D2219				XXX			1.0	3	75	1	114.25	290.19	13.0	5.90	Green	1.6
D2221				XXXX			1.0	4	75	1	168.25	427.35	17.25	7.83	Green	2.2
D2236					XXXX		6.0	1	22	1	84.06	213.51	18.0	8.20	Green	1.2
D2260		XXX					1.0	3	75	1	196.50	499.11	25.0	11.34	2 Piece Green	2.6
D2260A			XXX				1.0	3	75	1	193.30	490.98	25.0	11.34	2 Piece Green	2.5
D2261A		XX					4.0	1	40	1	140.50	356.87	19.0	8.62	Green	1.7
D2261A1		XX					4.0	1	40	3	140.50	356.87	19.0	8.62	White	2.1
D2262				XX			4.0	1	40	2	68.0	172.70	13.0	5.90	Green	1.0
D2262A				XX			4.0	1	40	3	68.0	172.70	13.0	5.90	White	1.1
D2263				XXXX			5.0	1	20	1	134.10	340.61	20.0	9.07	Green	1.8
D2272		XX					1.0	2	75	3	152.25	386.71	17.5	7.95	White	2.3
D2272A		XX					1.0	2	75	2	152.25	386.71	17.0	7.71	Green	2.3
D2273		X		X			1.0	2	75	3	84.25	214.0	11.2	5.08	White	1.3
D2274				XX			1.0	2	75	3	84.25	214.0	10.9	4.95	White	1.3
D2274A				XX			1.0	2	75	2	84.25	214.0	10.1	4.58	Green	1.3
D2276		X					1.0	1	75	3	54.50	138.43	5.2	2.36	White	0.7
D2277				X			1.0	1	75	3	32.25	81.91	3.9	1.77	White	0.4
D2288						XXXX	1.0	4	75	1	114.10	289.81	13.0	5.90	Green	1.5
D2295	X			XX			1.0	3	75	1	125.0	317.5	23.0	10.43	Green	2.0
D2296	XX			X			1.0	3	75	1	179.0	454.66	28.0	12.7	Green	3.0

X – Denotes number of active elements

(1) = 3 inch Tube (7.62 cm) Also available for 2.5 inch (6.35 cm) IPS Pipe

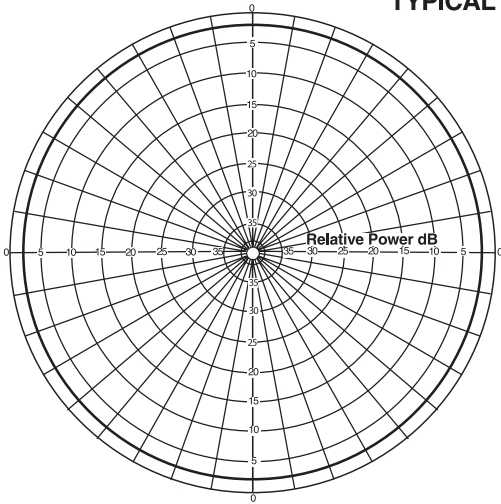
(2) = 1.5 to 3 inch Tube (3.81 to 7.62 cm)

(3) = 1.25 or 2.5 inch IPS Pipe (3.175 or 6.35 cm)

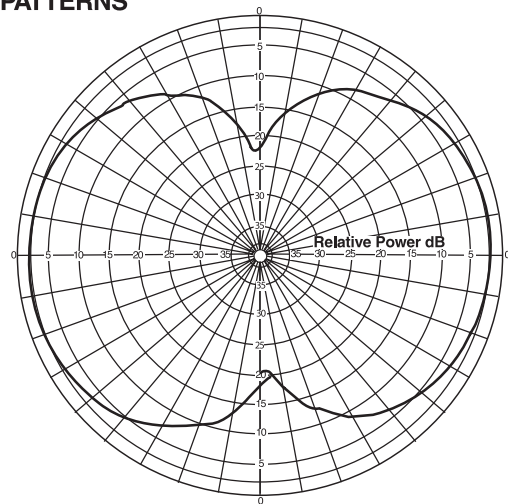
D2295 has lightning rod.

D2296 has lightning rod and obstruction lamp.

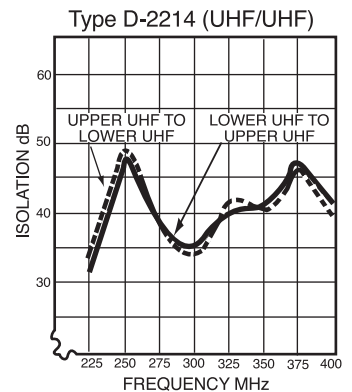
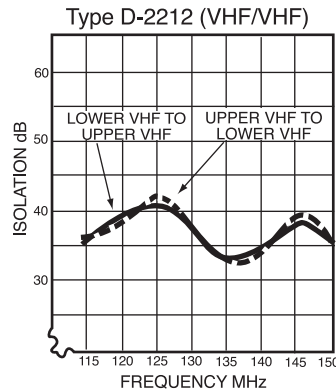
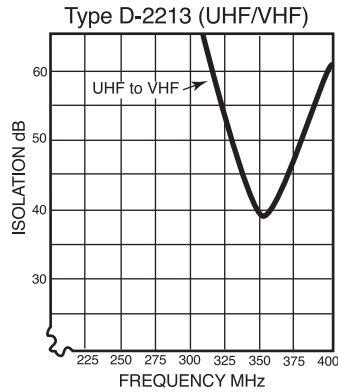
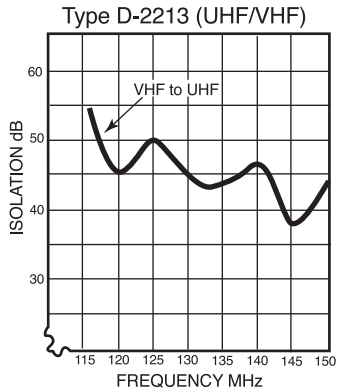
## TYPICAL RADIATION PATTERNS



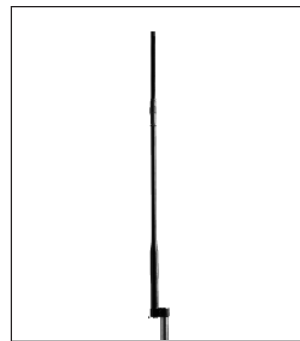
HORIZONTAL PATTERN



VERTICAL PATTERN



D2216



D2218

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