

D2000 Series: Muldipol Military Antennas

Description

The MULDIPOL™ Multiple Dipole Collinear Array concept has been specifically developed by TACO for ground-air-ground, air traffic control and base communications applications.

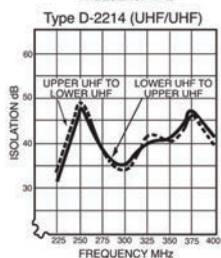
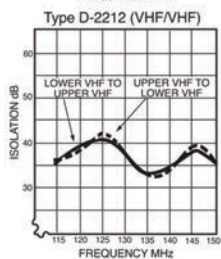
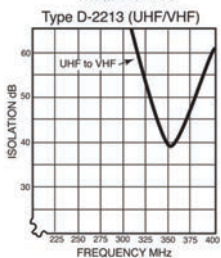
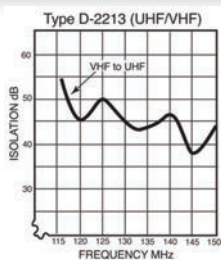
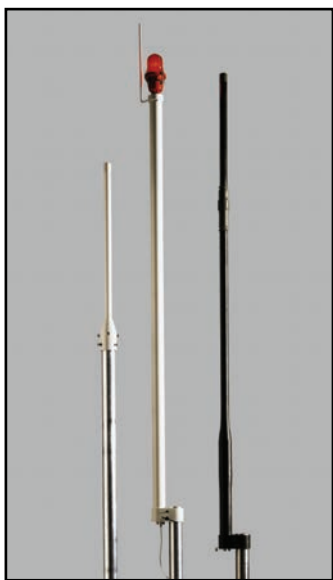
This omni directional concept employs a unique method of shielding the feed cables to improve radiation pattern characteristics. The MULDIPOL™ also has a high degree of isolation between discrete elements within a closely spaced array.

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.

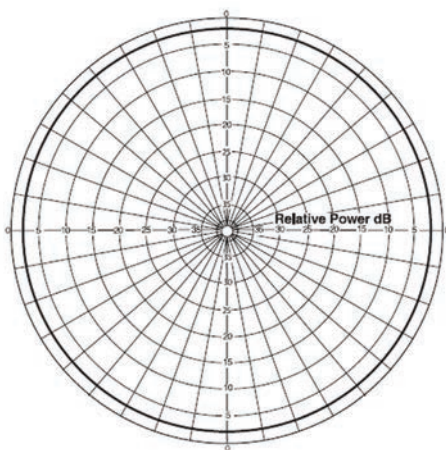
A minimum of 30 dB isolation is realized between any two antenna elements in every MULDIPOL™ model. The low profile silhouette of this antenna plus the resulting decrease in the number of antennas required at any tower site also gives a much improved radiation pattern coverage.

Features

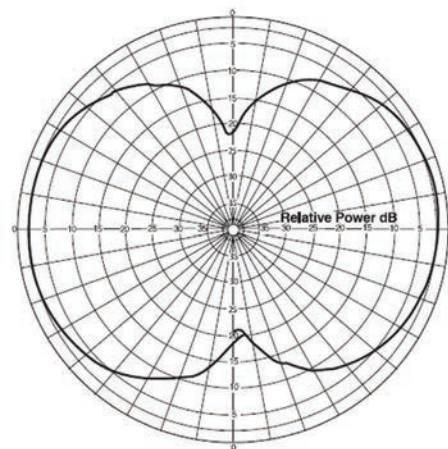
- Rugged lightweight construction
- Transportable
- Compact
- Combination of UHF and VHF
- High isolation between antenna elements



ANTENNA PATTERNS



Horizontal Pattern



Vertical Pattern

TACO Antenna's ongoing policy of continuing development may result in specification changes to its products.



Operation

The process employed in the TACO antennas incorporates the patented MULTIPOL™ 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 ANTENNA SPECIFICATIONS

Environmental

- Built to military standards
- Rain, salt-fog, sand, dust and fungus to MIL-STD810F

Electrical

- Isolation (min.) 30.0 dB
- Polarization Vertical
- Omni Directional +0dB/-1dB
- Uniformity (azimuth)
- VSWR (max.) 2:1 (except D2211, 2.3:1)
- Terminals “N” Female
- Terminal Impedance 50 Ohms
- VHF Applied Power 350 W*
- UHF Applied Power 250W
- Vertical Beam Deviation ±10° (horizon)
- Operating Temp -40° to 70° C (-40° to 158° F)

VHF FREQUENCIES ONLY

MODEL	VHF FREQUENCY (MHz)				GAIN (dBi)	# OF OUTPUTS	HPBW DEGREE	MOUNTING DIAMETER	LENGTH (IN)	LENGTH (CM)	WEIGHT (LBS)	WEIGHT (KG)	COLOR	NSN
	108-174	116-150	118-136	150-174										
D2212		xx			2.0	2	75	1	152.5	386.7	12.5	5.7	Green	5985-01-315-7443
D2212A				xx	2.0	2	75	1	121.38	386.7	12.5	5.7	Green	-
D2216		x			2.0	1	75	2	54.5	138.4	5.5	2.5	Green	5985-01-050-7522
D2260			xxx		2.0	3	75	1	196.5	499.1	25.0	11.3	2 Piece Green	5985-01-438-1459
D2260A				xxx	2.0	3	75	1	193.5	491.5	25.0	11.3	2 Piece Green	-
D2268	xxx				2.0	1	75	1	200.0	508.0	23.3	10.6	Green	-
D2272A			xx		2.0	2	75	2	152.5	386.7	17.0	7.7	Green	-

x - denotes number of active elements

*Except D2211 (250 W)

Mounting Diameter Key

(1) = 3 inch Mast size O.D. Also available for 2.875 upon request

(2) = 1.5 to 3 inch Mast size O.D.

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UHF FREQUENCIES ONLY

MODEL	UHF FREQUENCY (MHz)			GAIN (dBi)	# OF OUTPUTS	HPBW DEGREE	MOUNTING DIAMETER	LENGTH (IN)	LENGTH (CM)	WEIGHT (LBS)	WEIGHT (KG)	COLOR	NSN
	225-400	400-470	400-500										
D2214	xx			2.0	2	75	1	84.5	214.0	10	4.5	Green	5985-01-287-7682
D2217	x			2.0	1	75	2	32.5	81.9	4	1.8	Green	5985-01-129-7691
D2219	xxx			2.0	3	75	1	114.5	290.2	13	5.9	Green	5985-01-154-7328
D2221	xxxx			2.0	4	75	1	168.5	427.4	17.5	7.9	Green	5985-01-315-5472
D2231		xxxx		1.5	4	75	1	120.0	300.0	14	6.4	Green	-
D2236		xxxx		6.5	1	22	1	84.0	213.4	18	8.2	Green	-
D2262	xx			4.5	1	40	2	68.0	172.7	13	5.9	Green	-
D2263	xxxx			6.5	1	20	1	134.5	341.0	20	9.1	Green	-
D2266	xxxxxx			7.5	1	13	1	200.0	508.0	32	14.5	Green	-
D2266D	xxxxxx			5.5	2	25	1	200.0	508.0	32	14.5	Green	-
D2274A	xx			2.0	2	75	2	84.5	214.0	10	4.5	Green	-
D2288			xxxx	2.0	4	75	1	114.5	290.2	13	5.9	White	-

VHF & UHF FREQUENCIES

MODEL	VHF (MHz)			UHF (MHz)		GAIN (dBi)	# OF OUTPUTS	HPBW DEGREE	MOUNTING DIAMETER	LENGTH (IN)	LENGTH (CM)	WEIGHT (LBS)	WEIGHT (KG)	COLOR	NSN
	108-174	116-150	138-174	225-400	400-470										
D2118		x		xx		2.0	3	75	1	114.5	290.2	12.5	5.7	Green	5985-01-186-2740
D2211	x			x		1.5	1	75	1	103.0	261.6	14.0	6.4	White	5985-01-568-9419
D2213		x		x		2.0	2	75	1	84.5	214.0	10.0	4.5	Green	5985-01-149-9091
D2218		xx		x		2.0	3	75	1	168.5	427.4	16.5	7.5	Green	5985-01-301-5437
D2218A		xx		x		2.0	3	75	1	168.5	427.4	17.5	7.5	2 Piece Green	5985-01-063-1474
D2241	x			x		1.5	2	75	1	106.0	269.3	14.0	6.4	Green	-
D2243			x	x	x	1.5	2	75	1	140.0	350.0	16.4	7.4	2 Piece Green	-
D2295		x		xx		2.0	3	75	1	125.0	317.5	23.0	10.4	White	5985-01-383-8620
D2296		xx		x		2.0	3	75	1	196.0	497.8	28.0	12.7	White	5985-01-383-8569

x - denotes number of active elements

D2295 has lightning rod.

D2296 has lightning rod and obstruction light.

Mounting Diameter Key

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