

D5000 Series: FAA Muldipol Aviation Antennas

Description

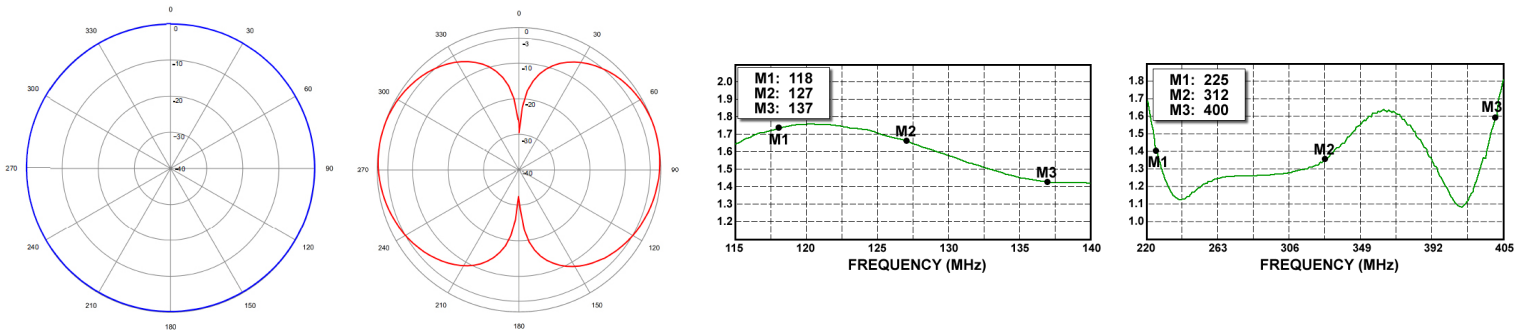
The MULDIPOLTM Multiple Dipole Collinear Array concept has been specifically developed by TACO for ground-air-ground, air traffic control and associated vehicular and base communications applications. The MULDIPOLTM has a high degree of isolation between elements within a closely spaced array. The result is a small, rugged, easy to install antenna. A minimum of 30 dB isolation is realized between any two antenna elements in every MULDIPOLTM 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 and 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*)



D5076 & D5077 TYPICAL PATTERNS:



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

MECHANICAL SPECIFICATIONS

MODELS	D5061A1	D5062A	D5071	D5072	D5073	D5074	D5076	D5077	D5078
OVERALL LENGTH (in.)	137.15	72.15	111.5	153.0	85.0	85.0	55.5	30.5	121.5
ANTENNA WEIGHT	19.0 lbs	13.5 lbs	17.0 lbs	17.0 lbs	12.0 lbs	12.0 lbs	6.0 lbs	5.0 lbs	17.0 lbs
* TOTAL SHIPPING WEIGHT	23.5 lbs	15.0 lbs	19.0 lbs	22.0 lbs	14.0 lbs	14.0 lbs	10.0 lbs	8.0 lbs	19.0 lbs
MOUNTING OPTIONS									
TYPE	Mast	Mast	Mast	Mast	Mast	Mast	Mast	Mast	Mast
MAST SIZE (O.D.)	2.875"	1.66" up to 2.875"	2.875"	2.875"	2.875"	2.875"	1.66" up to 2.875"	1.66" up to 2.875"	2.875"

* Weights are approximate values

TACO ANTENNA

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ELECTRICAL SPECIFICATIONS

MODELS		D5061A1	D5062A	D5071	D5072	D5073	D5074	D5076	D5077	D5078
FREQUENCY RANGE (MHz)		V 118-137	U 225-400	U 225-400 V 118-137	V 118-137	U 225-400 V 118-137	U 225-400	V 118-137	U 225-400	U 225-400
GAIN (dBi) +0dB/-1dB		4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
NUMBER OF OUTPUTS		1	1	3	2	2	2	1	1	3
NUMBER OF ELEMENTS		2x V	2x U	U / V / U	V / V	U / V	U / U	V	U	U / U / U
VSWR:	MAX	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
	TYPICAL	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
HPBW:	HORZ.	360	360	360	360	360	360	360	360	360
	VERT.	40	40	75	75	75	75	75	75	75
POLARIZATION		VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL	VERTICAL
1st SIDELOBE SUPPRESSION		13 dB	13 dB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CROSS POL. SUPPRESSION		20 dB	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB
ISOLATION		N/A	N/A	> 30 dB	> 30 dB	> 30 dB	> 30 dB	N/A	N/A	> 30 dB
IMPEDANCE		50	50	50	50	50	50	50	50	50
ST. CONNECTOR (FEMALE)		N	N	N	N	N	N	N	N	N
MAX. INPUT POWER		600W	500W	250W	350W	250W	250W	350W	250W	250W
OPERATING TEMPERATURE (°F)		-40 to +158	-40 to +158	-40 to +158	-40 to +158	-40 to +158	-40 to +158	-40 to +158	-40 to +158	-40 to +158
DC GROUND		YES	YES	YES	YES	YES	YES	YES	YES	YES
NSN		5985-01-050-7525	5985-01-296-1904	-	5985-01-053-5108	5985-01-050-7524	5985-01-050-7523	5985-01-050-7522	5985-01-050-7521	-

Rain, salt-fog, sand, dust and fungus to MIL-STD. 810F

WIND LOADING SPECIFICATIONS

MODELS		D5061A1	D5062A	D5071	D5072	D5073	D5074	D5076	D5077	D5078
ANTENNA PROJECTED AREA (ft ²)	No Ice	2.21	0.87	1.81	2.46	1.00	1.00	0.69	0.42	1.97
	1/2" Radial Ice	3.19	1.40	2.62	3.55	1.63	1.63	1.10	0.66	2.84
BENDING MOMENT (Ft-Lbs)	*No Ice	327.1	63.2	216.4	406.9	87.5	87.5	37.6	11.8	256.8
	**1/2" Radial Ice	119.0	26.3	78.9	147.9	36.3	36.3	15.7	4.9	93.5
***SURVIVAL RATING No Ice (mph)		150	150	150	150	150	150	150	150	150

* Wind Speed = 100 MPH

** Wind Speed = 50 MPH

*** Safety Factor of 1.65 included per TIA_329

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