

## UHF SATCOM Helical Antennas



### Fixed Helical UHF SATCOM Antennas

TACO's circularly polarized high gain Fixed UHF SATCOM Antennas are designed to withstand the severest of environmental conditions. Presently used by all branches of the US Military and various Defense Contractors worldwide, TACO's Helicals are an industry leading communication product.

### Solidly Built, Simply Installed

- Solidly constructed using an aluminum mast and ground plane
- Helix supported by dielectric rods running along the mast
- 2-piece ground plane assembles easily with no tools required

### Custom Networks

- Systems tailored to suit specific customer requirements
- Remotely control up to 12 antennas networked with electrical pan & tilt positioners

### Flexible & Adaptable

- 2 mounting options to meet your specific needs
- Mesh design allows for reduced wind loading
- Durability to withstand the most severe of weather conditions
- UFO and MUOS compatible



## MECHANICAL MOUNTS SPECIFICATIONS

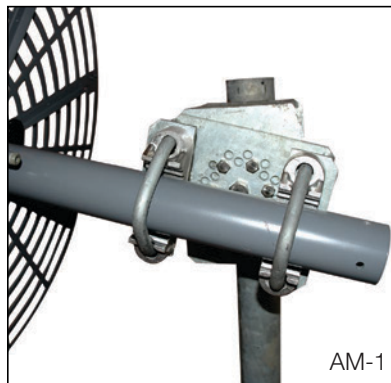
MODEL	TYPE	HEIGHT	POSITION AZ	EL	WEIGHT (NET)	ANTENNA MAST	MOUNTING PIPE	NSN
AM-1	Mast	N/A	Fixed Increments	± 90 15° 31.3 kg	49 lbs. (8.9 to 11.4 cm)	2.875" to 4.5" (7.3 to 11.4 cm)	2.875" to 4.5" (7.3 to 11.4 cm)	5985-01-587-7470
HM-5	Tripod (84 to 122 cm)	33" to 48"	360	- 5 to + 95 27.2 kg	60 lbs.	3" (7.6 cm)	N/A	N/A

## Mounting Options

We have 2 versatile mounts available:

Our AM-1 is an adjustable mast mount with elevation tuning in 15 degree fixed increments. It's solidly constructed from hot-dip galvanized steel to endure the most extreme elements.

The HM-5 is a versatile tripod mount with the ability to adjust and align to any azimuth or elevation angle.



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

### TELEPHONE

United States: 866.975.4433  
Canada: 519.756.7157  
Europe: (+44)07765.583491  
All Other Regions: 717.975.0885

### TACO ANTENNA

(A Division of Wade Antenna, Inc.)  
29 Sharp Road, Brantford, Ontario  
Canada N3T 5L8  
[www.tacoantenna.com](http://www.tacoantenna.com)

### EMAIL

United States: [sales@tacoantenna.com](mailto:sales@tacoantenna.com)  
Canada: [cansales@tacoantenna.com](mailto:cansales@tacoantenna.com)  
Europe: [jbarton@tacoantenna.com](mailto:jbarton@tacoantenna.com)  
All Other Regions: [sales@tacoantenna.com](mailto:sales@tacoantenna.com)  
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## ELECTRICAL SPECIFICATIONS

MODEL	H-064A	H-084A NSN 5985-01-587-3790	H-084	H-104	H-124 NSN 5985-01-476-0720	H-065	H-085	H-105
FREQUENCY RANGE (MHz)	225-400	225-400	240-320	240-320	240-320	300-520	300-520	300-520
GAIN (dBic)	12.5	13.8	13.8	14.8	16	12.5	13.8	14.8
AXIAL RATIO (HELICAL ONLY)	1.17	1.13	1.13	1.1	1.08	1.17	1.13	1.1
IMPEDANCE	50	50	50	50	50	50	50	50
POLARIZATION	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular
CROSS POL. REJECTION	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB	20 dB
BACK TO FRONT RATIO	23 dB	24 dB	24 dB	25 dB	26 dB	23 dB	24 dB	25 dB
VSWR	MAX.	1.5	1.6	1.5	1.5	1.5	1.5	1.5
	TYPICAL	1.3	1.3	1.2	1.2	1.2	1.3	1.3
HPBW	45	40	40	35	33	45	40	35
1ST SIDELOBE SUPPRESSION	11 dB	12 dB	12 dB	13 dB	14 dB	11 dB	12 dB	13 dB
*STD CONNECTOR	N Female	N Female	N Female	N Female	N Female	N Female	N Female	N Female
MAX. INPUT POWER	500W	500W	500W	500W	500W	500W	500W	500W
OPERATING TEMPERATURE (°C)	-40 to +70	-40 to +70	-40 to +70	-40 to +70	-40 to +70	-40 to +70	-40 to +70	-40 to +70
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

## MECHANICAL SPECIFICATIONS

MODEL	H-064A	H-084A NSN 5985-01-587-3790	H-084	H-104	H-124 NSN 5985-01-476-0720	H-065	H-085	H-105
NUMBER OF OUTPUTS	1	1	1	1	1	1	1	1
NUMBER OF ELEM. (TURNS)	6	8	8	10	12	6	8	10
OVERALL LENGTH (in.)	84	103	112	134	155	68	84	97
HELICAL DIAMETER (in.)	11.85	11.85	13.43	13.43	13.43	9.0	9.0	9.0
GROUND PLANE DIAMETER (in.)	35	35	57	57	57	35	35	35
MOUNTING STUB LENGTH(in.)	23	23	23	23	23	23	23	23
STUB DIAMETER (in.)	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87
ANTENNA WEIGHT (lbs.)	34	38	39	44	49	25	29	33
*TOTAL SHIPPING WEIGHT (lbs.)	124	146	164	199	235	94	114	134
<b>MOUNTING OPTIONS</b>								
TYPE	Mast/Tripod	Mast/Tripod	Mast/Tripod	Mast/Tripod	Mast/Tripod	Mast/Tripod	Mast/Tripod	Mast/Tripod
AZ. ADJUST	360 deg.	360 deg.	360 deg.	360 deg.	360 deg.	360 deg.	360 deg.	360 deg.
EL. ADJUST	90 deg.	90 deg.	90 deg.	90 deg.	90 deg.	90 deg.	90 deg.	90 deg.

\* Weights are approximate values

## WIND LOADING (ANTENNA ONLY)

MODEL	H-064A	H-084A NSN 5985-01-587-3790	H-084	H-104	H-124 NSN 5985-01-476-0720	H-065	H-085	H-105	
WIND AREA (sq. ft.)	(NO ICE)	2.05	2.17	2.5	3.13	3.75	1.07	1.43	1.79
	(1/2" RADIAL ICE)	4.7	4.9	5.64	7.05	8.46	2.42	3.23	4.04
WIND LOAD (sq. ft.)	*(NO ICE)	221	259	344	530	755	73	128	199
	** (1/2" RADIAL ICE)	145	169	223	344	491	48	83	129
SURVIVAL RATING: *** (NO ICE)	150 mph	150 mph	150 mph	150 mph	150 mph	150 mph	150 mph	150 mph	

\* Wind Speed = 100 MPH at sea level with One Hundred Percent Humidity at Seventy Degrees Fahrenheit.

\*\* Wind Speed = 50 MPH at sea level with One Hundred Percent Humidity at Zero Degrees Fahrenheit.

\*\*\* Maximum Wind Speed at sea level with One Hundred Percent Humidity at Seventy Degrees Fahrenheit. Safety Factor of 1.65 included.

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

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United States: sales@tacoantenna.com  
Canada: cansales@tacoantenna.com  
Europe: jbarton@tacoantenna.com  
All Other Regions: sales@tacoantenna.com  
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