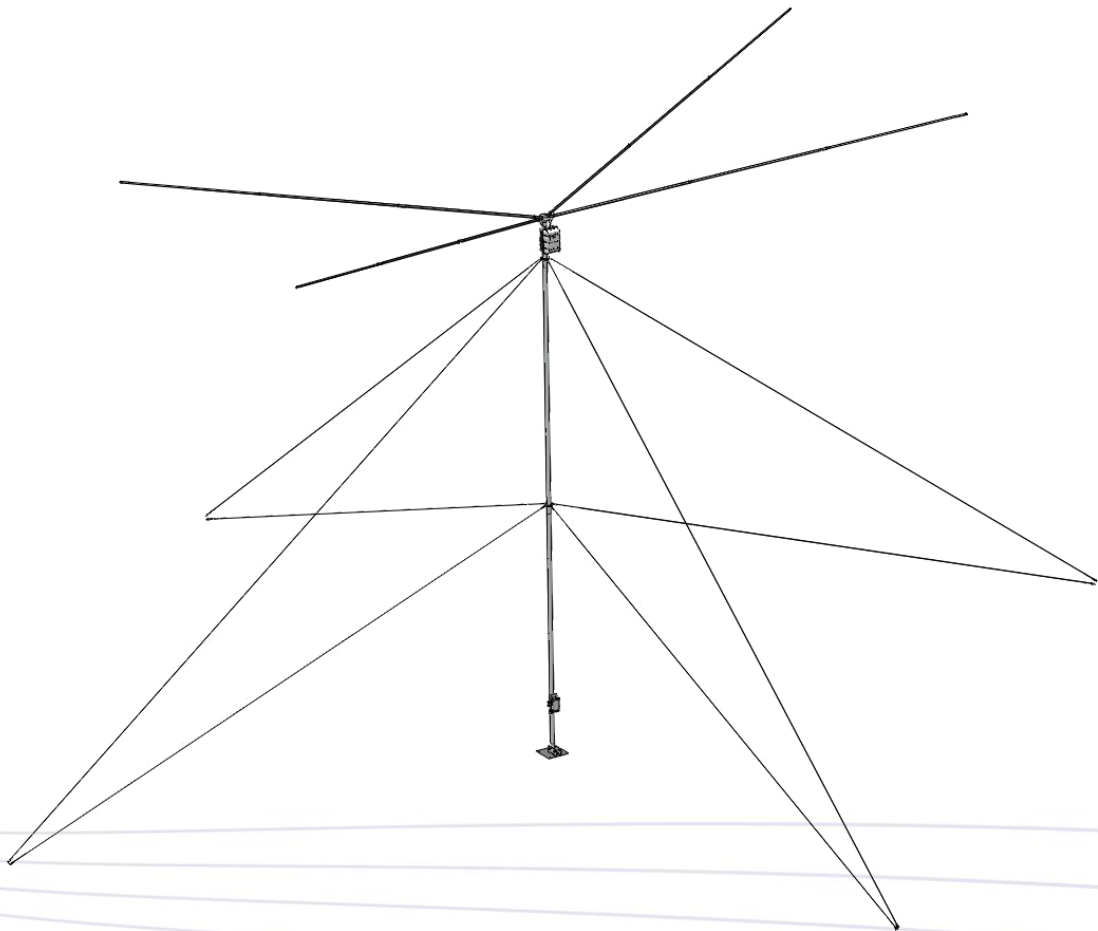




Active HF Base Station Antenna (Cat's Whisker)

2.5 – 30 MHz

Data Sheet



4005 shown deployed on the supplied 6m mast

The Lencom® 4005 active HF base station antenna belongs to the same family as the 4002 and 4006 vehicular tuners.

It is optimised to tune its four, 4.8m, dipole elements to a VSWR less than 1.5:1 over the whole range of 2.5 — 30MHz, with no gaps.

The unique tuning algorithm provides a memory-tune location for all frequencies between 2.5 — 30MHz.

The memory tuning time of <150mS makes the 4005 the ideal tuner for networks using ALE and/or frequency hopping, with tuning times for new frequencies averaging less than 1 second.

The 4005 is extremely rugged and meets MIL-STD 810F for waterproofing (IP68), shock, vibration and dust ingress.

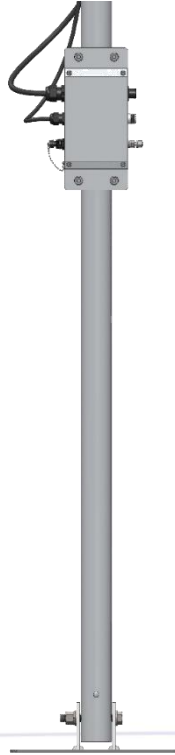


Active HF Base Station Antenna (Cat's Whisker)

2.5 – 30 MHz

An Interface Unit is installed at the base of the mast, and provides system earthing, as well as an optional external DC power input to increase cable length.

Data Sheet



Interface unit attached to mast

The unique harness system contains the arms and provides a wind rating for the Cat's Whisker of 200km/h in free air.



Harness System

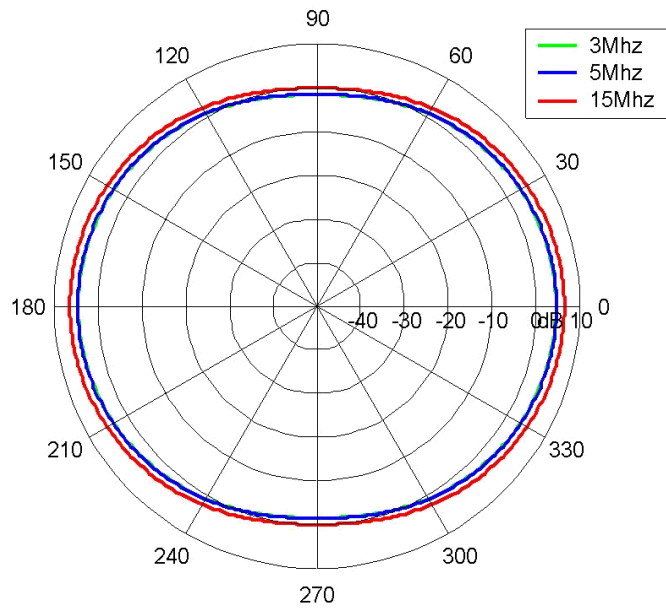


Active HF Base Station Antenna (Cat's Whisker)

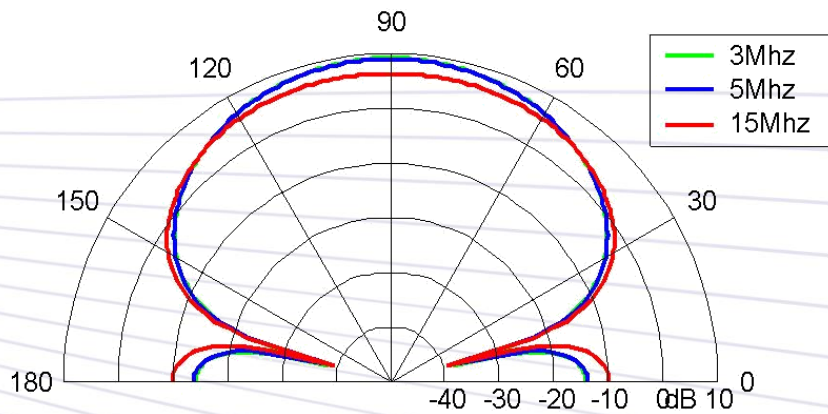
2.5 – 30 MHz

Key Characteristics – Radiation Patterns

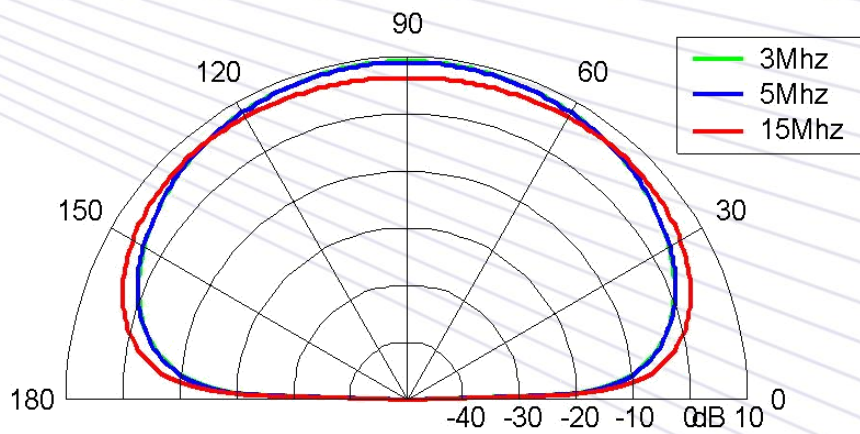
Data Sheet



Azimuth pattern, 35° elevation



Elevation pattern, 90° azimuth



Elevation pattern, 0° azimuth



Active HF Base Station Antenna (Cat's Whisker)

2.5 – 30 MHz

Key Characteristics – Electrical and Mechanical

Electrical

Frequency range	2.5-30MHz	
Power rating	125W PEP	
Power consumption	Tuned	Typically 400mA
	Tuning	<800mA
Input Impedance	50Ω	
VSWR	Typically 1.5:1	
Tuning speed	New frequency	Average < 1 second
	Memory tuning	<150mS
Memory channels	Unlimited - unique non-linear memory allocation	
Efficiency	Typically >40%	

Mechanical

Temperature Rating	-30 to +60° C	
Wind Rating	200km/h free-air, no ice	
DC operating range	10 to 16VDC	
Protection	Open circuit antenna	
	Short circuit antenna	
	Over temperature	
	High VSWR	
	Voltage transients	
EMC	Compliant	
Shock and vibration	MIL-STD-810F (Dust, vibration, water ingress to IP68) Case pressure-equalisation device fitted	
Dimensions	Tuner body	300mm x 250mm (including connectors) x 190mm
	Total, including arms	4m x 9m
Weight	ATU & Interface Unit	11.5kg
	6m Mast	22kg
Control cable	Codan 3040/9350/3042/3046, 20m	
Connectors	RF:	N socket
	Control:	6 pin bayonet (Mil-spec)
Case construction	Bespoke diecast aluminium alloy	
Colour	White	

Specifications subject to change without notice