



# CAT80/CAT125

## High Gain Collinears

### 68-140 MHz

- 3dBd(5.2dBi) to 5dBd(7.2dBi) Gain**
- Slim Tapered Design**
- Rugged Glass Fibre Protection**
- Easy Mounting**

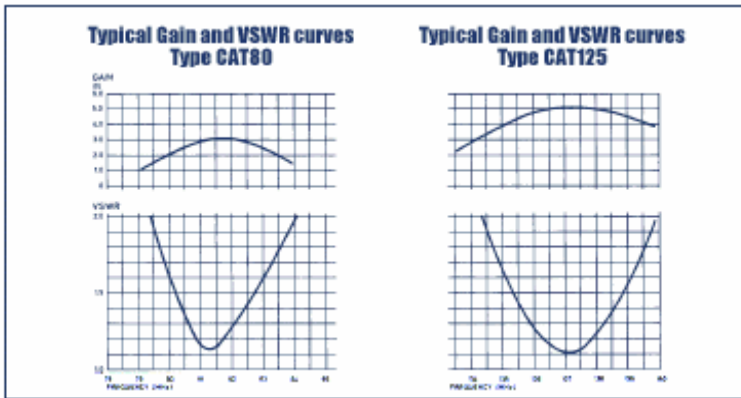
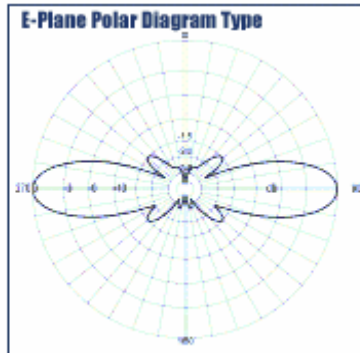
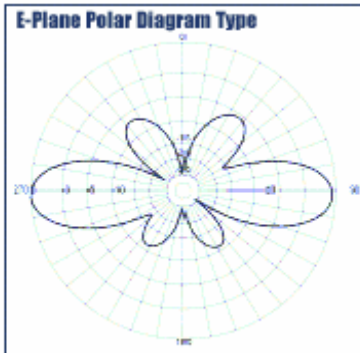
Types CAT80 and CAT125 provide gain of 3dB and 5dB respectively at any design frequency within their specified frequency ranges. Type CAT80 maintains a gain of at least 2dB over a 2.5 MHz band, and type CAT125 a gain of 4.5dB over a 3.5 MHz band with VSWR not exceeding 1.5:1. A high degree of decoupling from the support structure and feeder cable has been achieved without the use of ground plane rods. The radiating elements of these rugged collinear antennas are encapsulated in low loss polyurethane foam which binds them firmly to the inside of the support tube. These antennas are constructed in two sections to facilitate handling, storage and shipping. Prior to installation the sections are screwed firmly together.



NB\* Specify Operating Frequency When Ordering.

ELECTRICAL SPECIFICATIONS	CAT80Z1	CAT125Z1
<b>Frequency Range:</b>	68-105 MHz	105.140 MHz
<b>Bandwidth</b>	3% typical	3% typical
<b>Gain (Rel. <math>\lambda/2</math> dipole):</b>	3dBd	5dBd
<b>VSWR:</b>	1.5:1 typical	1.5:1 typical
<b>Polarisation</b>	Vertical	Vertical
<b>E-Plane Beamwidth (-3dB)</b>	$\pm 14^\circ$ typical	$\pm 11^\circ$ typical
<b>Power Rating:</b>	75 Watts	75 Watts
<b>Impedance:</b>	50 ohms	50 ohms
<b>Lightning Protection:</b>	DC ground	DC ground
<b>Feeder Tail:</b>	915mm URM67 coaxial cable	915mm URM67 coaxial cable
MECHANICAL SPECIFICATIONS		
<b>Termination:</b>	N male *	N male*
	<b>*Other Terminations Avail</b>	
<b>Overall Length</b>	6m approx.	6m approx.
<b>Radiator Housing Diameter</b>	41 mm max outside diameter	41 mm max outside diameter
<b>Support Tube Diameter</b>	48mm O.D	48mm O.D
<b>Weight:</b>	5kg	5kg
<b>Rated Wind Velocity:</b>	193 km/h	193 km/h
<b>Horizontal Thrust at Rated Wind:</b>	32.6kg	32.6kg
<b>Mounting:</b>	Order separately. Mounts to a 32-51mm O.D. Support pipe using 2 x clamp pt.no 9638501Z1	
MATERIALS		
<b>Radiator Housing</b>	Green tapered glass fibre tube	
<b>Radiator Elements</b>	Copper	
<b>Support tubes:</b>	48mm 7swg seamless extruded aluminium	
<b>Clamps</b>	Aluminium casting, stainless steel U-bolts and fasteners	

# CAT80/CAT125 High Gain Collinears 68-140 MHz



Pt. No. 9638501  
Parallel Clamp for connecting to  
1 1/2-2 in. (32-51 mm) od.  
support. Two of these clamps  
provide excellent offset  
masthead mounting as shown  
overleaf.