

## Section 5

# CELLULAR MOBILE PHONE ANTENNAS

Updated 1 August 2011

## CT800 and CT900 NEXT G or GSM Low Profile, Rugged and Covert

**Frequency**  
825 – 960 MHz

**Bandwidth**  
NEXT G or GSM



If you require a cellular mobile phone antenna which is small, inconspicuous and virtually indestructible, then model CT800 for the NEXT G network or CT900 for GSM will be your solution.

These low profile, covert and rugged cellular mobile phone antennas are an ideal choice in situations where traditional whip antennas would be vulnerable to damage or vandalism.



Constructed from aluminium and delrin with a rubber mounting gasket, the antenna measures just 150 mm long, 32 mm wide and 32 mm high. It mounts to any flat metal surface by drilling three holes; two for bolts and one larger for the N-Female connector.

The metal surface acts as a ground plane and, if around 1 metre square, the antenna will produce a near omnidirectional radiation pattern with 2.1 dBi gain.

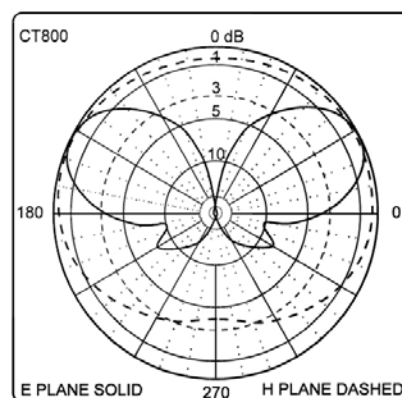
The N-Female connector protrudes through the metal surface so as your feeder cable connected from underneath is concealed and protected from damage. The thick rubber gasket provides a waterproof seal.

**Typical applications** suited for these low profile antennas include :

- ✓ Trains
- ✓ Buses
- ✓ Forklifts
- ✓ Tractors
- ✓ Forestry Vehicles
- ✓ Logging Trucks
- ✓ Police
- ✓ Ambulance
- ✓ Fire Brigade
- ✓ Emergency Services
- ✓ Security Services



SPECIFICATIONS	CT800	CT900
<b>Construction</b>	Aluminium and delrin with rubber sealing gasket	
<b>Cellular Mobile Phone Network Coverage</b>	<b>NEXT G</b> 825 to 890 MHz	<b>GSM</b> 890 to 960 MHz
<b>VSWR</b>	< 1.6:1 full band	< 1.6:1 full band
<b>Tuning</b>	Factory	Factory
<b>Nominal Gain</b>	<b>2.1 dBi</b>	<b>2.1 dBi</b>
<b>Maximum Power</b>	5 Watts	5 Watts
<b>Impedance</b>	50 Ohms	50 Ohms
<b>Polarisation</b>	Vertical	Vertical
<b>E-Plane</b>	Same as a normal 1/4 wave whip	
<b>H-Plane</b>	Near 360° omnidirectional	
<b>Connector</b>	N-Female	N-Female
<b>Dimensions</b>	150 mm long x 32 mm wide x 32 mm high	
<b>Weight</b>	170 grams	170 grams
<b>Mounting</b>	Drill 3 holes in metal ground plane surface. 2 holes for bolts, 1 larger for N-Female connector. N-Female protrudes through ground plane. Low loss feeder cable connects from underneath.	



The E-Plane above shows an elevated radiation angle like that of a traditional 1/4 wave whip.

The H-Plane is near omnidirectional but has reduced signal strength at the rear, typical of this low profile design.