

InvenTek Active Antenna's



GPS Active Antenna's - Low Cost - Waterproof

The Inventek active antenna, part number ANTDOM-XX-CT-WPM is designed to work with a variety of GPS receivers. The active antenna is waterproof and can be used for automotive applications with an impedance of 50 ohms.

The dimensions are 45 x 45 x 14.5mm (circular), black.

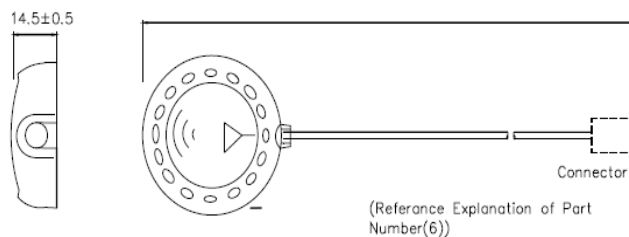
The units weight approx 110+- 10 g including Radome, connector and 5 m cable.

Temperature range -40 to +90 °C Input voltage range from 2.7- 5.4 volts, current is 10-23 mA (10 mA @ 3 volts).

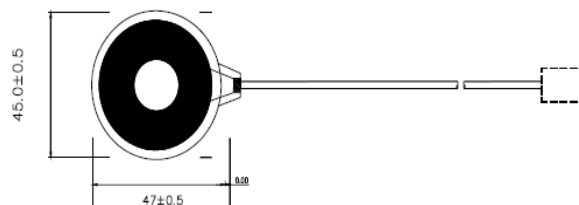
The following ordering configurations are available by order:

P/N: ANTDOM-XX-CT-WPM

1. (XX) = Cable length
 1. 05: 5 Meters (Standard)
 2. 10: 10 Meters
 3. xx: Custom order



2. (CT) = Connector Types
 - 00 : No connector
 - 01: SMA plug (Male) (standard)
 - 02: SMA jack (Female)
 - xxx: Custom connector



Ordering Part number sequence example (WP = Waterproof) (M= Magnetic)

ANTDOM-05-01-WPM (5 meter cable with Male SMA, waterproof & magnetic)

ANTDOM-05-01-WP (5 meter cable with Male SMA, waterproof & non-magnetic)

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Characteristics

Patch characteristics are measured with 70x70 mm ground plane in an anechoic chamber.

Active antenna ESD test (working): >16kv (contact discharge with radome)

Waterproof per IP67 testing specification

Pull Strength is 6 Kg

Input voltage range from 2.7- 5.4 volts

Current is 10-23mA (10mA @ 3 volts)

Operating Conditions

Temperature range : -40 to +90 °C

Humidity : 10 – 95% RH

Storage Conditions

Temperature range : -40 to +90 °C

Humidity : 10 – 95% RH

Patch Characteristics

Center Freq : 1575.42 +/- 1.023 Mhz (with radome and measured by LNA ground plane)

Bandwidth (10 dB return loss) – 10 Mhz min

Gain at Zenith : 5.0 dBic typical

Gain at 10 degrees elevation: -1.0 dBic min

Polarization : R.H.C.P

Axial Ration : 1.0 dB Typical

Filter/ LNA

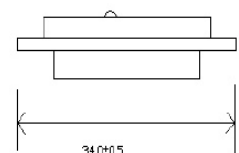
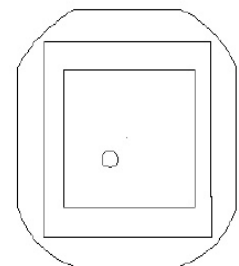
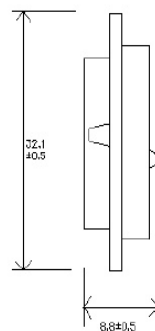
Gain : 26 to 35 dB (@ 3volts 30 dB)

Noise figure: 1.4 dB Typical (@ 3 volts 1.35dB)

VSWR: DC= 2.0 max

SAW Filter out of band :

7 db min	fo ± 20 MHz
20 db min	fo ± 50 MHz
30 db min	fo ± 100 MHz

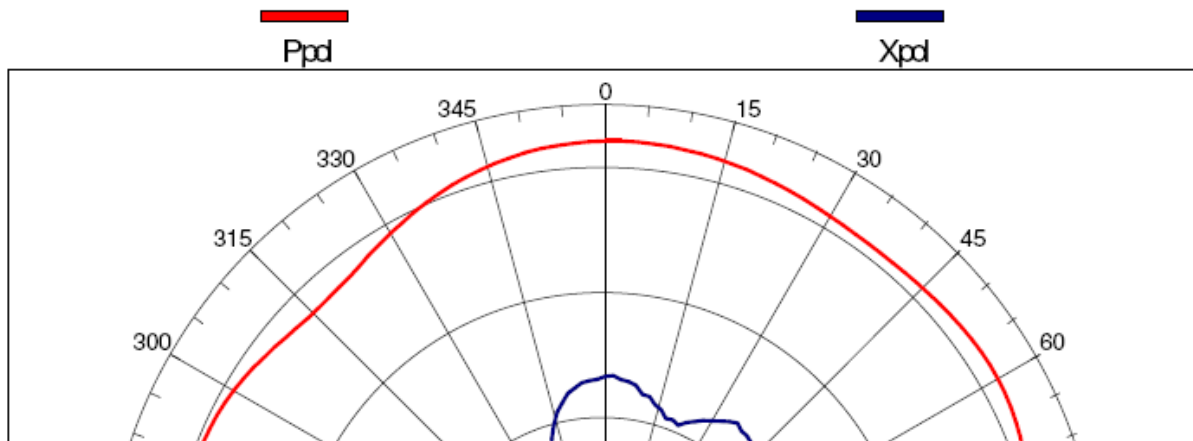


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Radiation Pattern (Exclude LNA Gain) (90°)

Far field amplitude excluding the LNA gain

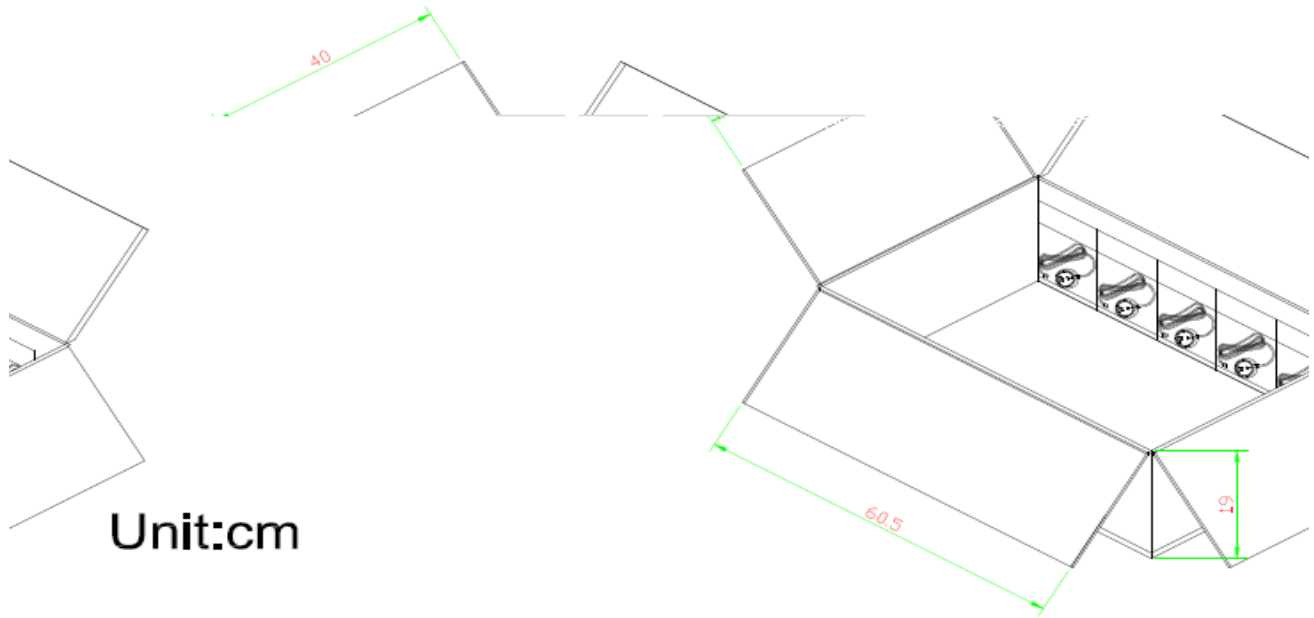


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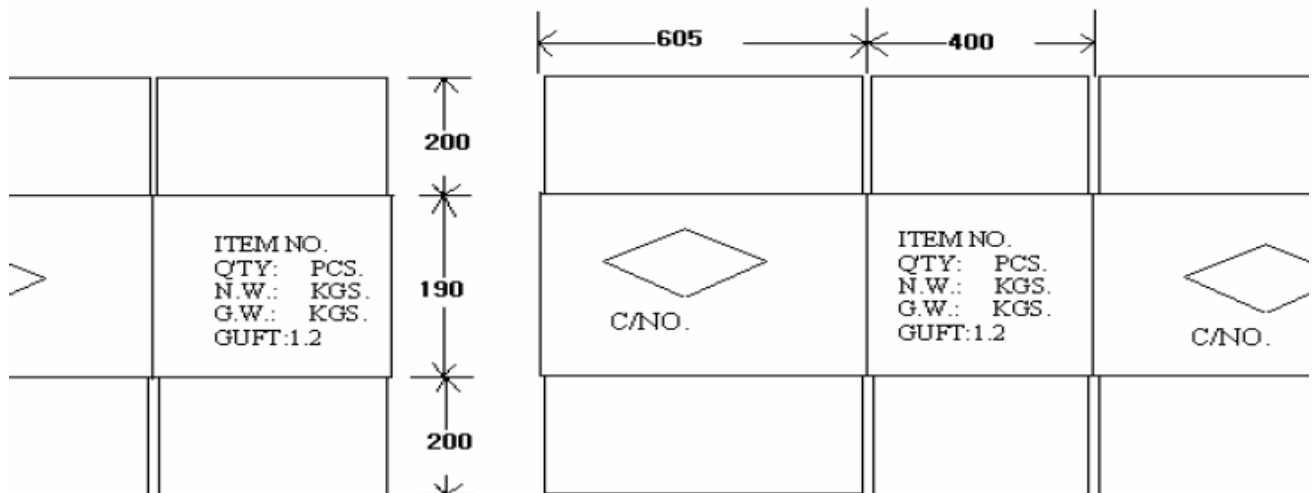


Packaging:

- Each antenna is individually packaged in plastic bags
- All bags are sealed, impulse sealer
- 100 units per box
- All material and components are ROHS compliant



Unit:cm



unit:mm

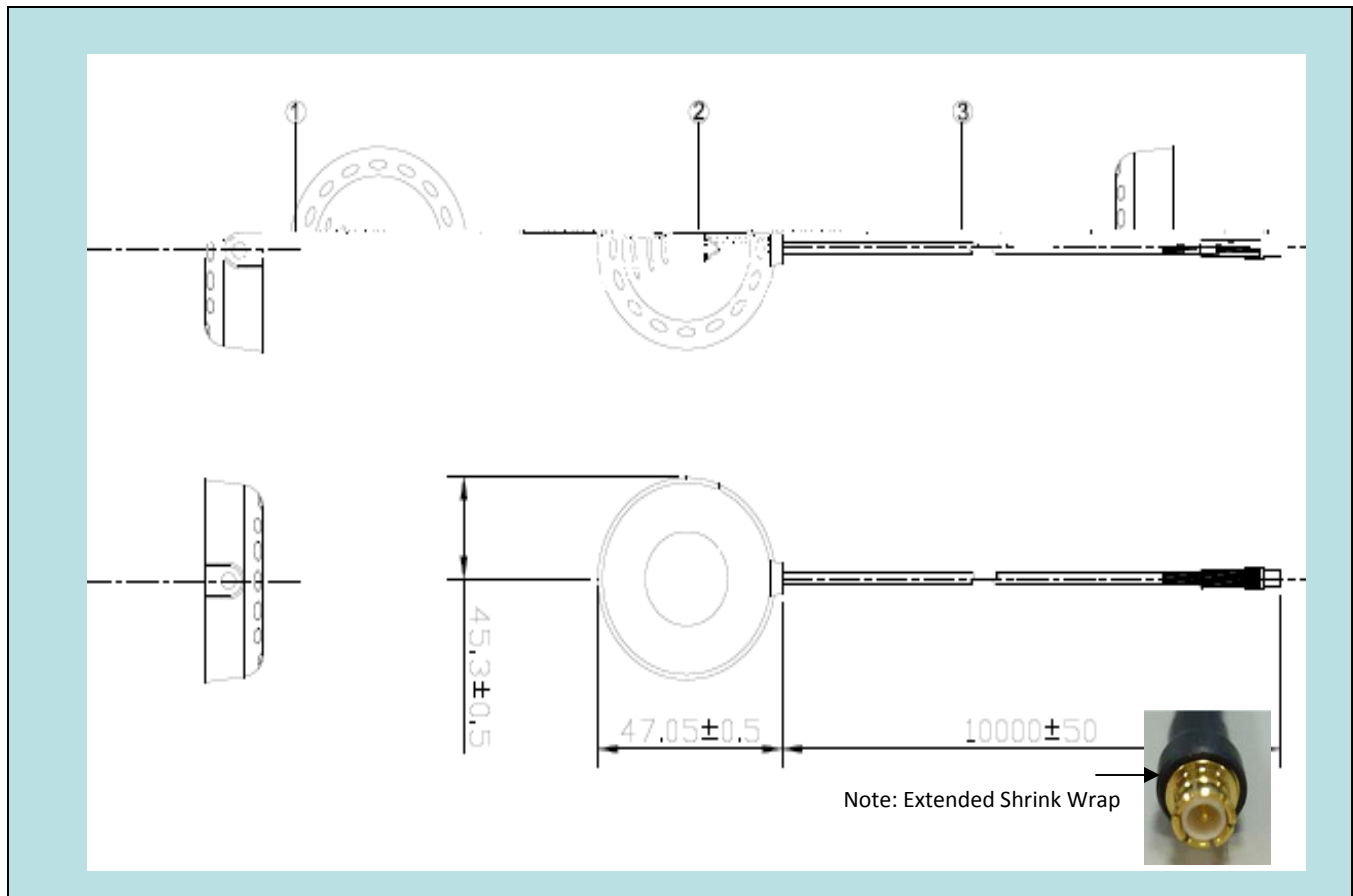
Tolerances: X=+/-10mm

InvenTek Active Antenna's



MCX ACTIVE PATCH

GPS Active Dome Antenna , MCX, 10 Meter RG-174 cable, waterproof and magnetic.



Item	Description	Material	Finish
1	DOME	ABS+PC	Black
2	Cable	RG-174	10050m
3	MCX plug	Brass	Au Plated
4	Shrink tube	PVC	Black
5	Label	Label	White

Specification:

- * Extended Shrink Wrap sleeve per picture above
- Active antenna ESD test (working): >16k (contact discharge with radome)
- * Waterproof per IP67 testing specification
- * Pull Strength is 6 Kg

Document # : ANTDOM	Not to Scale	Rev.	B	QC: LT Insp.: MT
Part # : ANTDOM-10-MCX-WPM	Date: May 5, 2009	Date	May 5, 2009	