

# Installation Instructions

## Magnetic MiMo Antenna Series

SW3-872- - Document Version 1

### A. Introduction

The magnetic MiMo antenna series is designed for M2M / IOT applications requiring MiMo / diversity support with magnetic fixing. The antenna has a rugged, low profile housing with two elements supporting 4G/3G and 2G bands and has integral RG174 coaxial cables. The GPS version incorporates an active GPS /GNSS antenna.



#### Electrical Safety Note

The GPS/GNSS variants of this product contains an active GPS/GNSS antenna (part number SR8-HG26). Rated voltage: 3-5VDC Rated current: 20mA maximum

### B. Mounting requirements and selecting location

Select a mounting location - this location should be flat and clean for maximum magnetic retention. Measure to check for central position if applicable.

If the antenna will be co-located with other antennas or equipment please try to ensure at least 30cm (12") of clearance around the antenna in order to avoid de-tuning and interference issues.

Ground plane requirement. This antenna range does not require a conductive ground plane in order to operate. Performance will vary slightly depending on whether a ground plane is present or not. Without a ground plane there will be no magnetic retention.

### C. Vehicle Mounting

The product is not primarily intended for vehicle mounting but can be mounted on vehicles where a risk assessment by a competent professional indicates that the magnetic retention is suitable for the application. In any case users should not exceed 80Mph/130Kmph when the antenna is installed externally on a vehicle.

### D. Routing and terminating coaxial cable(s)

Route the coaxial cables to the radio equipment, taking care to avoid running them adjacent to any existing wiring or fouling any moving components. If installing the antenna on a vehicle, the cables must not be routed in front of any airbag device SMA plug connectors are fitted as standard, which should suit most devices, if not, use an adaptor or change connector(s) as required.

### E. Commission and test

#### Check the GPS/GNSS cable (if applicable):

- Check the GPS/GNSS cable with DC to measure high resistance.
- Connect the GPS/GNSS cable to the GPS/GNSS receiver and check for satellite acquisition.

#### Check the comms cables:

- Carry out VSWR check, the VSWR on all feeds should measure <2.5:1 in transmit band.
- Connect the Cellular/LTE cables.

## F Notices



### CAUTION

To comply with FCC RF Exposure requirements in section 1.1310 of the FCC Rules, antennas used with this device must be installed to provide a separation distance of at least 20cm (8") from all persons to satisfy RF exposure compliance.



### DO NOT

- operate the transmitter when someone is within 20cm (8") of the antenna.
- operate the equipment in an explosive atmosphere.



### European Waste Electronic Equipment Directive 2002/96/EC

Please ensure that your old Waste Electricals and Electronics are recycled do not throw them away into standard waste.



### Directive 2011/65/EU (RoHS 2)

This product is fully compliant with the RoHS 2 directive

Models of this product incorporating an active GPS antenna are compliant with the following requirements: **DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL** of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity. According to: **EN 300 440-1 V1.6.1 (2010-08)** – Electromagnetic compatibility and radio spectrum matters (ERM); short range devices; radio equipment to be used in the 1GHz to 40GHz frequency range; Part 1: Technical characteristics and Test methods. In accordance with: **EN 300 440-2 V1.4.1 (2010-8)** - Electromagnetic compatibility and radio spectrum matters (ERM); short range devices; radio equipment to be used in the 1GHz to 40GHz frequency range; Part 2: Harmonised EN covering the essential requirements of article 3.2 of the R&TTE Directive