Model

SG2400R

Flange Mount Collinear
Wireless Data Link Antenna
38 cm tall

ISM Band

2.4 to 2.5 GHz

5.14 dBi Gain

- 10 cm diameter PVC Flange Base mounts to the floor, ceiling or any other flat surface using 2 screws.
- 50 cm of RG58 low loss solid core cable.
- TNC Male connector fitted. (*Or other as specified.*)
- 10 watts maximum input power.

INSTALLATION GUIDE

www.zcg.com.au

ANTENNA DESCRIPTION

The SG2400R flange mount collinear wireless data link antenna stands 38 cm tall and is factory tuned to cover the ISM band 2.4 to 2.5 GHz with 5.14 dBi gain.

Construction consists of brass silver soldered internals, a white fibreglass radome and PVC flange base 10 cm in diameter.

50 cm of RG58 low loss solid core cable side exits from the PVC flange. A TNC male connector is fitted to the cable as standard, or other connector as you specified when ordering.

The antenna is rated for up to 10 watts input power.

A detailed specification sheet is available to download from our website **www.zcg.com.au**

TUNING

The antenna has been tuned in the factory tuned to cover the full ISM band data link frequency range 2.4 to 2.5 GHz.

VSWR has been optimised to better than 1.5:1.

This tuning cannot be altered.

SELECTING THE MOUNTING POSITION

The PVC flange base can be secured to the floor, ceiling or any other flat surface using 2 screws.

No metal ground plane is necessary for the antenna to operate effectively.

To achieve best performance mount the antenna as far away from other antennas and metallic objects as possible to avoid interference and distortion of the 360^{O} omnidirectional radiation pattern.

GENERAL PRECAUTIONS

At all times standard Occupational Health and Safety working conditions must be maintained. Use common sense during all installation work.

FEEDER CABLE and CONNECTORS

- ***IMPORTANT* : Signal loss will be high in the 2.4 GHz ISM data link frequency range. It is therefore most important to select a good quality low loss feeder cable according to the length of run required.**
- ***RU400 low loss is recommended as the minimum standard of feeder cable necessary to reduce signal loss and maintain optimum antenna performance.***
- ***Always keep the cable run to the shortest length necessary.***
- Cable preparation trim dimensions for numerous connectors can be found in our product catalogue. This information is also available to download from the “Connectors” page of our website.
- Ensure that connector mating surfaces are not damaged and are clean and dry. The male connector pin should be set so as to not damage the female connector pin. Tighten the connectors firmly and make sure they are seated correctly.
- ***IMPORTANT : All connections should be sealed with two layers of self-amalgamating tape to prevent ingress of moisture.***
- ***Secure the cable properly so as it does not flap in the wind and no stress is placed upon any connections.***
- ***If using cable ties, then we highly recommend the stainless steel type for outdoor use.*** Do not pull them so tight as to crush the cable. A damaged feeder cable is a cause of high VSWR and reduced performance.
- If mounted outdoors, the feeder cable should be earthed to avoid a destructive power surge in the event of a lightning strike. A coaxial power surge protector installed in the cable line is also highly recommended.

RETURN LOSS TEST

- Following installation of feeder cable, connect an SWR meter and measure the return loss at the feeder cable input to ensure that there is no major departure from the factory specification of 1.5:1 VSWR.

INPUT POWER

- Only operate the antenna at up to 10 watts input power. Exceeding the maximum power rating will invalidate the warranty.

MAINTENANCE

- The antenna and it’s components have been designed for high reliability and low maintenance. We recommend a routine annual mechanical inspection of the antenna, connections and feeder cable together with a check of the return loss.

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