



Iridium Active Antenna RST740 Installation Manual



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Introduction

The RST740 antenna is designed for Iridium applications where long RF cables are needed and a passive antenna cannot be used. The RST740 has an integrated power amplifier (for transmitting signals to the satellite) and low noise amplifier (for receiving signals from the satellite) incorporated into the antenna.

Iridium Active Antenna Kit Contents

1. Antenna
2. Bias box
3. Mounting bracket
4. 3 x Set screws
5. 3 x Mounting screws
6. 3 x Flat washers
7. 3 x Split washers
8. AC adapter
9. DC power cable

Specifications

Equipment type Mobile or Fixed Base Station

Integrated operating environment [x] Commercial [x] Light Industry & Heavy Industry

Power supply requirement 9 to 36V DC, 30W

RF input power rating (US & Canada) 29 dbm or 0.8 Watt peak (conducted)

EIRP 12.31 dBW Max

Duty cycle N/A

TX Operating frequency range 1616.0 - 1626.5 MHz

RX Operating frequency range 1616.0 - 1626.5 MHz

RF Input impedance 50 Ohms

Modulation Q7W

Emission designation 96K1Q7W

Antenna type Integral

Antenna connector type TNC Female

Temperature rating Storage: -40°C to +80°C
Operational: -25°C to +55°C

Compliance FCC Iridium Approved

Important Safety Information



WARNING

To satisfy FCC RF exposure requirements for mobile transmitting devices, the minimum safety distance is 55 cm (21.7 inches). This separation distance should be maintained between antenna and people during operation of the antenna. Changes or modifications not expressly approved by Beam Communications could void the users authority to operate the equipment or the warranty.

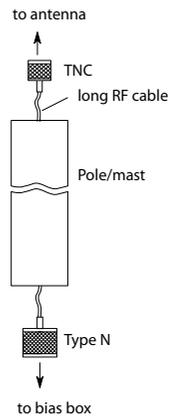
Cable Length Requirements

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference and
(2) this device must accept any interference received, including interference that may cause undesired operation.

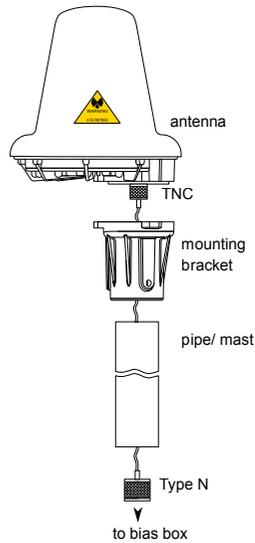
To meet Iridium performance requirements and comply with FCC regulations, care must be taken to use the appropriate total RF cable length. Your antenna distributor should provide the appropriate cable

Outside/Above Deck

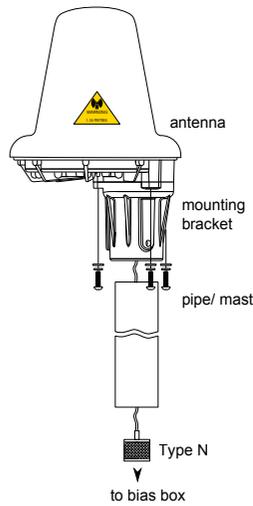
1. Bring the long RF cable to the top of the pole or mast.



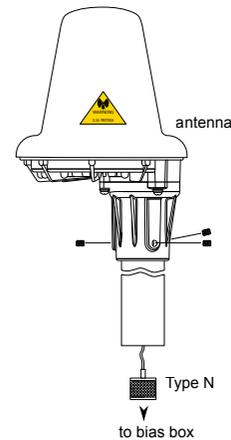
2. Feed the cable through the mounting bracket and attach the TNC connector to the antenna.



3. Insert the Mounting Screws to fasten the mounting bracket to the antenna.



4. Place the mounting bracket over the pole and tighten the set screws.



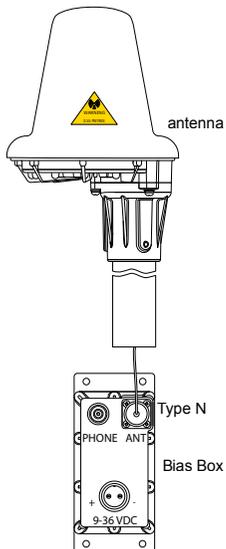
WARNING Galvanic Corrosion Protection

This antenna has a base and pipe adapter constructed out of aluminum. When the antenna is mounted to a steel mast or metallic bracket, a galvanic reaction can occur resulting in aluminum corrosion. To minimize corrosion the following steps can be taken:

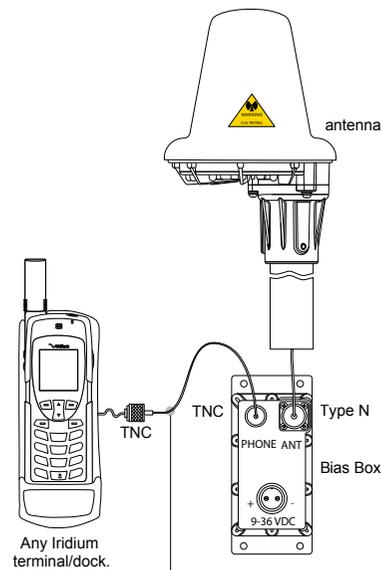
- apply self-fusing silicone tape to all connectors
- use a UV-resistant, non metallic mast when possible
- apply silicone grease or joint compound to all metallic surfaces that make contact with the antenna or mounting adapter
- if possible use an insulating plastic or rubber sleeve between a steel mast and the aluminum adapter.

Inside/Below Deck

1. Attach the Type N connector from the long RF cable to the bias box.

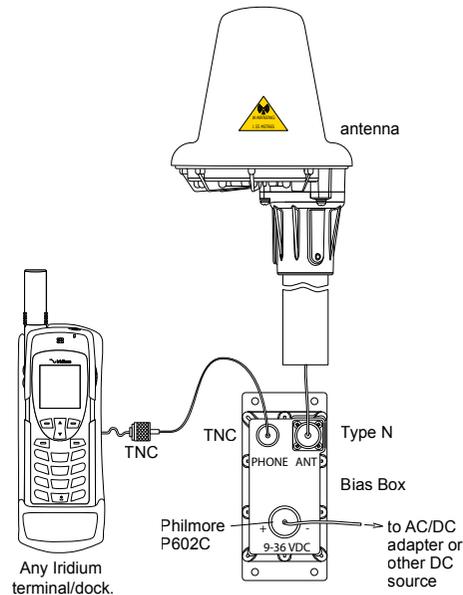


2. Attach the short RF cable to the bias box and the docking station.



NOTE: This cable is not part of the antenna kit.

3. Connect DC power (9 to 36 VDC, 30W) to bias box.



WARNING: Do not place the antenna anywhere there is a source of heat or fumes such as the ship's exhaust.