

## SPECIFICATION

|                      |                                                                                                                                                                                                                                                                                                                 |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Part No:</b>      | <b>STS.01.A.0115FB</b>                                                                                                                                                                                                                                                                                          |
| <b>Product Name:</b> | Spartan Iridium Transceiver Antenna System                                                                                                                                                                                                                                                                      |
| <b>Features:</b>     | <p>High Performance outdoor antenna</p> <p>White Housing</p> <p>Cables and Connectors Customizable</p> <p>IP67 &amp; IP69K Waterproof</p> <p>ISO16750 Automotive Reliability Tested</p> <p>115mm Multi-Conductor Cable</p> <p>Stripped 37mm, Tin 8mm</p> <p>Dims: 145.6*147.5*33.35mm</p> <p>RoHS Compliant</p> |



## 1. Introduction

The Spartan STS.01 Iridium Transceiver consists of an advanced Taoglas Iridium certified patch antenna and Iridium 9602 transceiver with RS-232 interface, all enclosed in a robust, IP67 waterproof through-hole mount enclosure.

The Iridium satellite network offers truly global M2M service with the lowest latency in the industry — extending the value of intelligent data far beyond the 10% of the Earth serviced by terrestrial networks.

Get reliable connectivity for your devices as the Iridium global satellite constellation operates at full capacity even in circumstances when terrestrial networks may run into challenges

Certified by Iridium, the Spartan STS.01 supports short burst data with a maximum mobile originated message size of 340 bytes and a maximum mobile terminated message size of 270 bytes. There is no SIM card required.

Typical applications include

- International trucking and haulage
- Remote asset monitoring
- Maritime communications
- Mining, oil and gas infrastructure monitoring
- Emergency operations
- Business continuity

The product features major advancements in reliability over existing systems, delivering

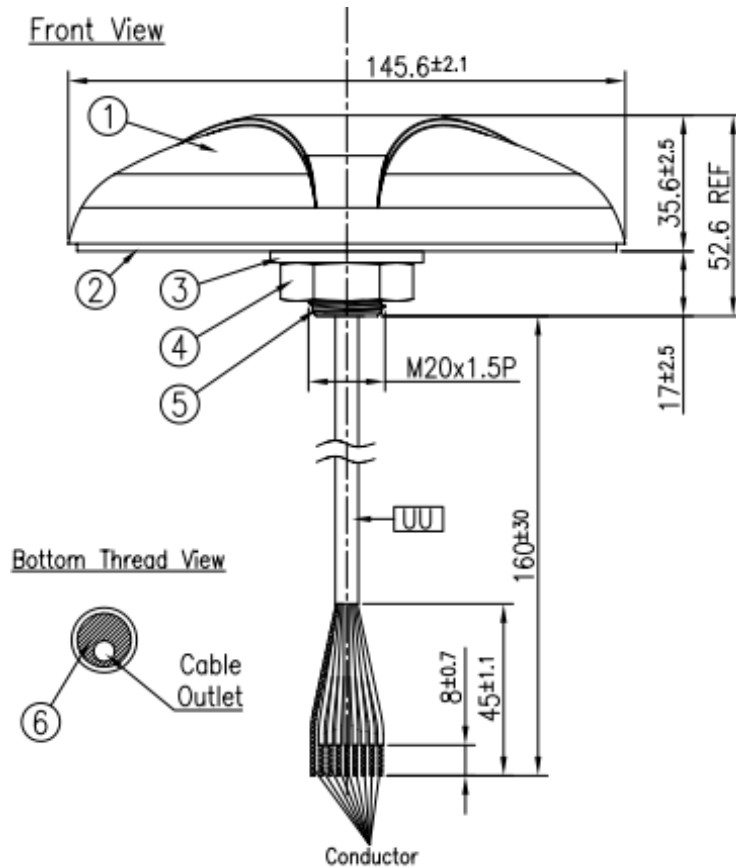
### Key Benefits

- One multi-conductor cable required.
- Quick and Simple Installation
- Higher radio performance (no RF coax losses)
- Low power consumption
- Full protection against load dump
- ISO16750 Automotive Reliability Tested

## 2. Features

| SYSTEM FEATURES                                                                  |                                                            |
|----------------------------------------------------------------------------------|------------------------------------------------------------|
| Integrated Iridium 9602 Transceiver                                              | Integrated power regulation with 8-32V input voltage range |
| 3-Wire RS-232 interface                                                          | Transient and reverse voltage protection                   |
| Enable signal line                                                               | Tamper detection                                           |
| Network status line                                                              | Load Dump Protection with No User Intervention (Class C)   |
| MECHANICAL                                                                       |                                                            |
| Enclosure: White, toughened ABS-Polycarbonate Alloy<br>UV stabilized             | Cable and Connector may be customized                      |
| IP67 Waterproof, IP69K Pressure Washing Safe                                     | Weight: 670g                                               |
| Dimensions:                                                                      | 145mm x 145mm x 90mm                                       |
| ENVIRONMENTAL RATINGS & CERTIFICATIONS                                           |                                                            |
| Temperature: -40° to +85° C (operating)<br>-40° to +85° C (storage)              | Fully certified FCC, CE, IC, Iridium                       |
| Humidity: 95% R.H. @ 50° C non-condensing                                        | Power: 8-32V Input Range                                   |
|                                                                                  | 12W peak consumption during transmit @ 12V                 |
|                                                                                  | 1.5W average consumption during transmit @ 12V             |
|                                                                                  | 1.5W peak consumption during receive/idle @ 12V            |
|                                                                                  | 90 mW average consumption radio off mode @ 12V             |
| Load Dump: ISO 16750-2 (12V and 24V system)                                      | ESD: ISO 10605<br>Contact 15kV, Air 15kV                   |
| Supply Immunity: ISO 16750-2<br>ISO 7637-2<br>ISO 7637-3<br>(12V and 24V system) |                                                            |

### 3. Drawing

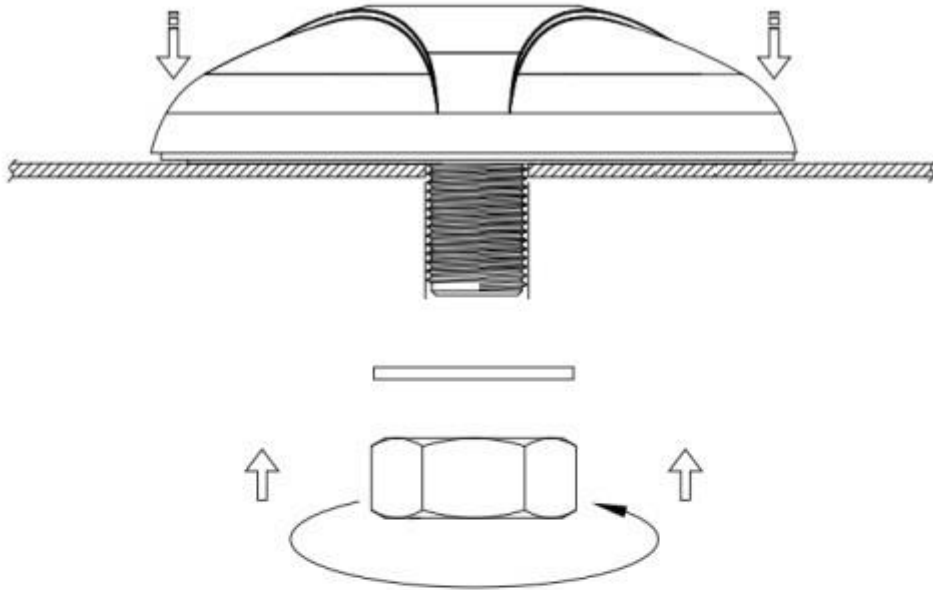


See table for  
Conductor  
detail

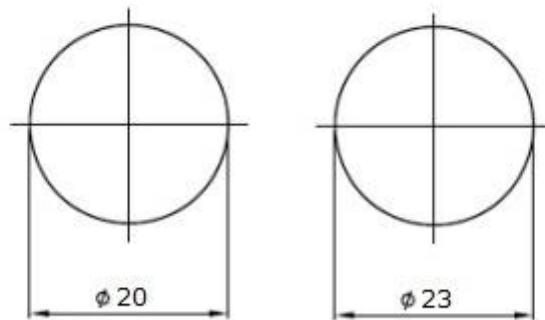
|    | Name                 | Material        | Finish    | QTY |
|----|----------------------|-----------------|-----------|-----|
| 1  | Housing Spartan ST   | PC + ABS        | White     | 1   |
| 2  | Closed Cell Foam     | 3M 9448+CR-4305 | Black     | 1   |
| 3  | Nut_M20x1.5Px10H Cut | Steel           | Ni Plated | 1   |
| 4  | Washer Nut           | Steel           | Ni Plated | 1   |
| 5  | Metal Base ST        | Zinc Alloy      | Ni Plated | 1   |
| 6  | Cable Rubber         | Silicone Rubber | Black     | 1   |
| UU | Cable Type           | Multi-Conductor | Black     | 1   |

| Conductor Color | Conductor Function                                    |
|-----------------|-------------------------------------------------------|
| Red             | Power Input (+8-32V)                                  |
| Black           | Power and Signal GND                                  |
| Orange          | On/Off Control (>1.4v Input to enable Iridium module) |
| Blue            | Network Available (+3.3V Output)                      |
| Green           | RX (Relative to Antenna Module)                       |
| Yellow          | TX (Relative to Antenna Module)                       |
| Gray            | Tamper Detect                                         |
| White           | Chassis Ground                                        |
| Drain Wire      | Internally connected to Chassis Ground                |

## 4. Installation



Recommended Torque for Mounting 29.4 N·m  
Maximum Torque for Mounting 39.2 N·m



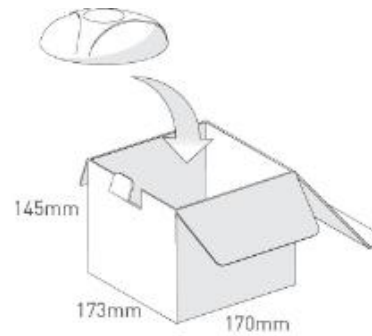
**Thread  
Diameter**

**Recommended  
Mounting Hole**

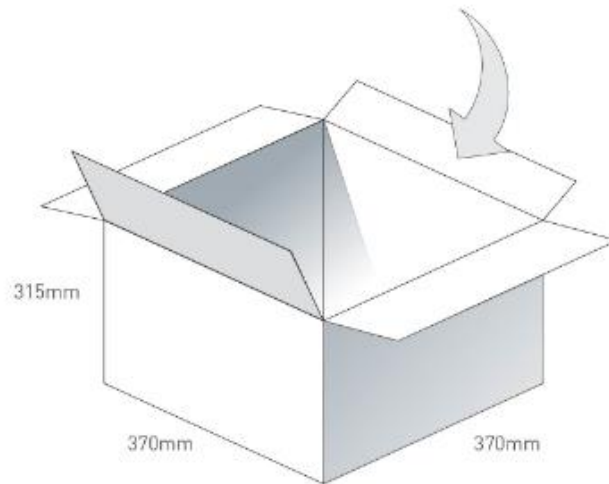
**Unit: mm**

## 5. Packaging

1pc STS.01.B.0115FB in PE bag per small box  
Box Dimensions - 173\*170\*145 mm  
Weight - 800g



8 small boxes in one carton  
Carton Dimensions - 370\*370\*315 mm  
Weight - 6.9Kg



Pallet Dimensions 1100\*1100\*1260mm  
36 Cartons per Pallet  
9 Cartons per layer  
4 Layers

