



A Tallysman *Accutenna*™ TW2605 Embedded Iridium™ Certified Antenna

The TW2605 employs Tallysman's unique *Accutenna*™ technology in an embedded, passive right hand circularly polarised antenna for the 1616 to 1626.5 MHz frequency band, certified and specially designed to maximise the performance of Iridium™ voice and data modems.

The TW2605 features a high performance dual-feed patch element that provides great axial ratio (3dB max) over the entire Iridium™ frequency band, thus signals at the band edges remain truly circular, unlike the response of single feed antennas.

The TW2605 provides excellent Iridium™ signal coverage, and comes in a compact circular form factor with a built-in 50 mm diameter ground plane. Standard coax cable is 15cm of RG174. Custom tuning, cable length, and connectors are available on request.

Applications

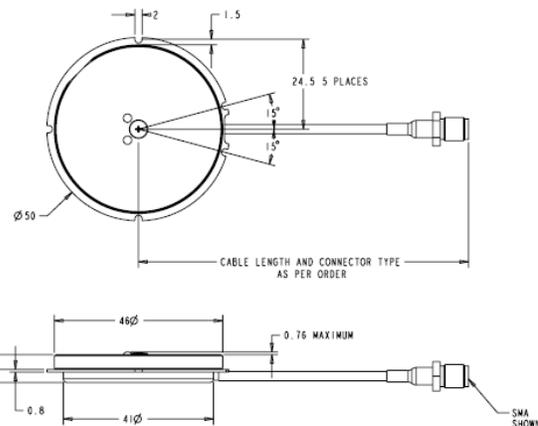
- Iridium™ Voice and Data Applications
- Sea & Land Container Tracking
- Military & Security
- Fleet Management & Asset Tracking
- Marine & Avionics Systems
- Law Enforcement & Public Safety

Features

- Custom high gain 4.25 dBic dual-feed patch
- Great axial ratio, 3 dB over full bandwidth
- 15 KV ESD circuit protection
- Robust design
- Small form factor
- Available application specific tuning



TW2605 Dimensions (mm)



Benefits

- Excellent circular polarized signal transmission
- Industrial temperature range
- Rugged Design
- RoHS compliant



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Specifications

Vcc = Over full bandwidth, T=25°C

Antenna

| | |
|-----------------------------------|------------------------|
| Architecture | Dual, quadrature feeds |
| Antenna Gain (100mm ground plane) | 4.25 dBic |
| Axial Ratio (over full bandwidth) | ≤3 dB |
| Radiated Bandwidth (-0.5 dB) | 1605 MHz to 1635 MHz |

Electrical

| | |
|---|----------------------------------|
| Architecture | Hybrid 90° phase signal splitter |
| Frequency Bandwidth | 1616 to 1626.5 MHz |
| Polarization | RHCP |
| Cross Polarization Rejection | typically 20dB |
| Gain flatness | ≤0.5 dB, from 1616 to 1626.5 MHz |
| VSWR (at antenna) | <1.5:1 |
| Return Loss Bandwidth (10 dB return loss) | >20 MHz |
| ESD Circuit protection | 15 KV air discharge |

Mechanicals & Environmental

| | |
|-----------------------|---|
| Mechanical Size | 50 mm dia. x 7.8 mm H |
| Cable | RG174 / 15 cm, custom lengths optional |
| Operating Temp. Range | -40 to +85 °C |
| Weight | 100 g |
| Attachment Method | Adhesive or Screw Mount |
| Environmental | RoHS compliant |
| Shock | Vertical axis: 50 G, other axes: 30 G |
| Vibration | 3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G |

Ordering Information

TW2605 – Iridium™ antenna, 33-2605-xx-yyyy-zz

Please refer to the Ordering Guide (<http://www.tallysman.com/wp-content/uploads/Current-Ordering-Guide.pdf>) for the current and complete list of available connectors.

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