TrollScan Ultra-High-Gain ENG Tracking Antenna

Troll’s TrollScan Antenna System incorporates a 4ft cosecant squared reflector for high quality digital ENG receive sites. TrollScan provides the gain necessary to maximize range, ensure signal isolation and optimize frequency re-utilization.

A modern implementation of an “old-school” design, TrollScan’s are simple, rugged and built to provide the highest performance in demanding physical and RF environments.

TrollScan antennas can support dual-rotary joints, which allow for simultaneous dual-band or dual-polarized operation. The dual-polarized option is the only way to realize the high-bit-rates offered by MIMO (Multiple Input Multiple Output) communications systems. TrollScan’s orthogonally polarized beams can either double the data rate or provide two-channel diversity that increases the link’s robustness.

- Direct drive positioning motor
- Weatherproof rotary joint design
- Operation from UHF to Ku Band
- Continuous rotation

Installation Compatibility
TrollScan control cable and mounting configuration is backwardly compatible with ProScan II.

Existing Systems
TrollScan offers a service and replacement path for existing ProScan II installations.

Typical applications include
- Electronic News Gathering
- Defense Infrastructure
- Military Surveillance
- Airborne Law Enforcement
TrollScan Tracking Antenna

**TrollScan Physical Characteristics**

**System Properties**
- Connection: Single Control Cable
- Power: 28 vdc (3 Amps) or 110 / 240 VAC
- Power and Control Device: DMR receiver with Power provided by S-Type Site Controller (S750, X750)

**Antenna Type:**
- **Frequency:** 1.4 GHz to 15GHz
- **Gain:** 24 dBi to 46 dBi (Dependant on Frequency)
- **Antenna Polarization:** Vertical (Cosecant Parabolic)
- **Steering Azimuth:** Continuous Rotation, Max Speed 20° per second

**Environmental**
- **Temperature:** 0°C to +55°C

**Mechanical**
- **Dimensions:** 7’ H x 4.25’ W x 6.5’ D
- **Weight:** 300 lbs
- **Base:** 24”W x 24”L

**Antenna Characteristics**

<table>
<thead>
<tr>
<th>Type</th>
<th>L Band</th>
<th>S Band</th>
<th>Lower C</th>
<th>Upper C</th>
<th>Ku Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>4’ Cosecant Parabolic</td>
<td>1.8 GHz</td>
<td>2.3 GHz</td>
<td>4.4 GHz</td>
<td>6.5 GHz</td>
<td>14 GHz</td>
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<tr>
<td>Mid-Band:</td>
<td>24 dBi</td>
<td>26 dBi</td>
<td>34 dBi</td>
<td>36 dBi</td>
<td>46 dBi</td>
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X750 power controller