A6 and A5 Diversity Antenna
Five or Six Channel Multi-Band Antenna System

The A6 or A5 diversity ground antennas were designed to provide high-gain 360° diversity signal reception without the cost and complexity of a dedicated tracking system. Each antenna uses five or six independent sectors with overlapping reception beam-widths. Integrated into the design are high-performance UHF down-converters with exceptional selectivity characteristics. This conversion to UHF frequency bands is designed to lower cost, improve efficiency, minimize cable loss and reduce noise.

A5 and A6 sector antennas can produce up to 15dBi of gain in any one direction, and are available in single to tri-band configurations.

The antennas are specifically designed to take advantage of Troll Systems’ diversity infrastructure equipment. The DMR series of diversity receivers and the VNS (Video Network Server) provide IP packet switching, video decryption, transcoding and secure Cloud Video Streaming. Troll’s sector antennas are an ideal way to improve your air-to-ground network coverage and provide a low cost platform to extend your reach.

Benefits
- Lower installation costs
- Provide 360° reception on up to three frequency bands simultaneously
- Minimize operator workload
- 1.4GHz to 7.1GHz converted to UHF

Installation
Installation costs are reduced by minimizing the equipment and cables required to configure a system.

Typical applications include
- Electronic News Gathering
- Defense Infrastructure
- Military Surveillance
- Airborne Law Enforcement
Multi-Frequency | Multi-Channel Panel Diversity System

A6 or A5 Diversity - Single to Tri-Band
Five or Six Channel Diversity Receive System

A6 Physical Characteristics

General
System Type: Static Diversity Antenna Array
Diversity Antennas: Diversity Antennas:
Down-Converters 1.5 GHz - 8 GHz down converted to UHF
Receiver: DMR Series Maximal Ratio Combining -
DVB-T demodulation

System Interface
Connection: RF Input SMA Female — IF Output SMA Female
Control: Passive
Power: 12-18VDC
Outputs: UHF 400 - 800 MHz

Options:
Diversity Antennas:
Type: Wide-Band Slot, Sector, MicroStrip, Dipole
Number: Five or Six
Antenna Gain: Up to 15 dBi in any direction
Antenna Polarization: Vertical
Antenna Beamwidth (Az) ± 30°

Block Down Converter
RF Frequency Range: 1.4 to 7.4 in bands
RF Input Impedance: 50 Ω
IF Frequency Range: UHF - 50 MHz to 900 MHz
Noise Figure: L & S band < 2dB — C band <4dB

Specifications subject to change without notice.

Antenna Characteristics

<table>
<thead>
<tr>
<th>Type</th>
<th>Low L Band</th>
<th>High L Band</th>
<th>S Band</th>
<th>Lower C</th>
<th>Upper C</th>
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<tr>
<td></td>
<td>Dual Can</td>
<td>Dual Slot</td>
<td>Dual Slot</td>
<td>Quad Slot</td>
<td>Quad Slot</td>
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<tr>
<td></td>
<td>1.4-1.5 GHz</td>
<td>1.7-1.9 GHz</td>
<td>2-2.5 GHz</td>
<td>4.4-5.0 GHz</td>
<td>6.4-7.1 GHz</td>
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<td>Mid-Band:</td>
<td></td>
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<tr>
<td>Beamwidth:</td>
<td>65° AZ / 35° EL</td>
<td>63° AZ / 33° EL</td>
<td>60° AZ / 30° EL</td>
<td>63° AZ / 14° EL</td>
<td>60° AZ / 12° EL</td>
</tr>
<tr>
<td>Antenna Gain:</td>
<td>11 dBi</td>
<td>12 dBi</td>
<td>13 dBi</td>
<td>14 dBi</td>
<td>15 dBi</td>
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<tr>
<td>Polarization:</td>
<td>Vertical</td>
<td>Vertical</td>
<td>Vertical</td>
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<td>Vertical</td>
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</tbody>
</table>

Environmental
Operating Temperature: -15°C to + 55°C
Mechanical
Dimensions: 15.5” Dia x 12.7” H
Weight: 20 lbs