Troll’s MT Series Tactical Tracking Antenna Systems, have been
designed to support forward operations in harsh physical
environments. MT antennas maximize the range and reliability
of air-to-ground video and data for manned and unmanned air,
ground and sea vehicles. MT antennas are soldier friendly, and
easy to operate, automatically locating RF signals and tracking them
effortlessly. The system features an extremely accurate high-gain
antenna that provides exceptional long-range performance up to
170 nmi (195 mi/ 273.6 km).

The modular design of the MT makes it easy to deploy, requiring
no tools for setup or tear down. Troll’s MT Series mobile antennas
automate tracking using a variety of methodologies, including
Telemetry, RF and Spectrum Tracking. The system locates
airborne or ground transmission assets and maintains Radio
Frequency (RF) links with them using one or more of these
tracking methods.

Operation
The MT antenna system is designed to be completely automated,
allowing operators to concentrate on content, not on the capture
of the signal. Once the receive channel has been set, the
antenna manages everything, including initial signal capture,
automatic peaking of the directional antenna, and ongoing
system optimization.

Automatic Tracking
The MT antenna incorporates an internal Inertial Navigation
System (INS) for automated calibration. The position
information provided by the INS is also transmitted to the
remote asset. In the case of bidirectional systems utilizing a
directional antenna at the other end, this data is used to
automatically steer the remote antenna to the MT, thereby
establishing the link and enabling completely hands-off operation.

The MT supports multiple bands, including UHF, L, S, C, X and Ku,
and is available in single, dual, tri, and quad-band configurations.
The system is radio-agnostic and will track any analog or digital
waveform. The antenna receives and transmits energy in narrow
beams thereby improving signal integrity while minimizing the
influence of interference or jamming signals.

Spectrum Tracking
The MT is a state-of-the-art RF tracking system that samples
RF energy at multiple points to continuously optimize
the antenna’s position relative to the desired signal. An
optional internal spectrum analyzer permits the operator to
assess the RF environment by conducting frequency sweeps.
Valid waveforms and signals can be distinguished from
interference, aiding in the ability to locate clear channels.
MT Series Spectrum Tracking Antenna

Tactical Tracking Antenna with 11 dBi to 40 dBi Gain

MT Series Antennas feature a modular design that enables rapid deployment. They include a heavy duty, 435° non-continuous (optionally continuous) rotation pan/tilt motor with +85° to -20° elevation. All electronics are housed on board, including the radio/modem. Once power and ethernet are connected the system auto-calibrates using an optional on-board INS.

MT Series Antennas disassembles into three pieces without tools and come with form-fitted cases for easy transportation.

- Low transportation costs
- Easy setup
- Automatic calibration and tracking
- Operate at long distances
- Network managed
- Minimize operator workload
- Daylight readable GUI controller

Specifications subject to change without notice.

MT-300 Physical Dimensions

Size 42” H x 42.5” L x 53” W
(106 cm H x 108 cm L x 135 cm W)
Weight 131 lbs (59 kg) without tripod
Reflector 58” W x 21” H x 27.5” D - 26lb
149 cm x 53 cm x 72cm - 36 kg

MT-200 Physical Dimensions

Size 35.4” H x 31.5” L x 30” W
(90 cm H x 80 cm L x 76 cm W)
Weight 110 lbs (50 kg) without tripod
Reflector 36” W x 20” H x 9.5” D - 12lb
91.5 cm x 51 cm x 24cm - 5.5 kg

Common

Power 15 - 36 VDC; 110 - 220 VAC
Hercules Tripod 44” x 13” x 13” 60lb. (27 kg)
(112 cm H x 33 cm L x 33 cm W)

Environmental

Without Heater 5° F to 131°F (-15°C to 55°C)
With Heater -22° F to 131°F (-30°C to 55°C)

Antenna Characteristics

<table>
<thead>
<tr>
<th></th>
<th>UHF</th>
<th>UHF</th>
<th>L Band</th>
<th>S Band</th>
<th>C1 Band</th>
<th>C2 Band</th>
<th>C3 Band</th>
<th>Ku Band</th>
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<tbody>
<tr>
<td></td>
<td>300 MHz</td>
<td>900 MHz</td>
<td>1.8 GHz</td>
<td>2.3 GHz</td>
<td>4.4 GHz</td>
<td>5.8 GHz</td>
<td>6.5 GHz</td>
<td>14 GHz</td>
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<tr>
<td>MT-300 Gain</td>
<td>11 dBi</td>
<td>15 dBi</td>
<td>22 dBi</td>
<td>24 dB</td>
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<td>33 dB</td>
<td>40 dB</td>
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<tr>
<td>MT-200 Gain</td>
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<td>13 dBi</td>
<td>17 dBi</td>
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<td>28 dB</td>
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The system consists of four cases with optional tripod. The cases weigh between 60 and 80 lbs (27.3 or 36.4 kg) and meet USAF guidelines for a two-man lift.

Supports simultaneous transmit and receive on up to four separate frequencies for video, data and UAV control 300 MHz to 17 GHz.

Optional Wi-Fi re-broadcasting

www.TROLLSYSTEMS.com
Troll Systems Corporation  Valencia, California
Phone: 661-702-8900   Fax: 661-702-8901 THE DATA LINK EXPERTS

MADE IN USA

Photo Courtesy of U.S. Army