COM’TRACK - Compact Tracking Antenna System

Main Functions
- Signal receiving, control and processing
- Video and data telemetry in s-band
- Tracking target
- Remote control

Main Applications
- Surveillance solutions using aircraft, UAV, helicopter, ground vehicles
- Flight test
- Data link

Main Features
- All type of interferences and location management
- Long range directional coverage
- Short range zenithal coverage
- An intuitive GUI with automatic acquisition & tracking capability
- Remote monitoring & control through RS422/232 link
- Two circular Rx down link
- Scanning mode
- Autotrack mode

Main Benefits
- Very fast results within minutes
- Transportability
- Fully integrated
- Easy operation
- Light weight
- Easy installation
- Easy to use
- Cost effective

COMTRACK is an S-band monopulse tracking antenna design for various applications. It is currently in use for aircraft and helicopter flight test telemetry, UAV up and down link ground vehicle telemetry, ammunition and short range missile test.

COMTRACK can receive video or data telemetry, with distant receiver.

Antenna Control Unit is done by software running on any standard PC thus the antenna can be fully remotely controlled.

Its light weight allows easy integration on vehicle or telescopic mast for mobile application.
Technical specifications

Electrical specifications

<table>
<thead>
<tr>
<th>Antenna Type</th>
<th>Directional</th>
<th>Zenithal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bandwidth</td>
<td>2180-2480 MHz</td>
<td>2180-2480 MHz</td>
</tr>
<tr>
<td>Gain (typ) @2250 MHz, 20°C</td>
<td>20 dBi</td>
<td>3 dBi</td>
</tr>
<tr>
<td>Polarization</td>
<td>RHCP, LHCP</td>
<td>LHCP Dual circular</td>
</tr>
<tr>
<td>3 dB beamwidth Az-plane</td>
<td>10°</td>
<td>360°</td>
</tr>
<tr>
<td>E-plane</td>
<td>17°</td>
<td>105°</td>
</tr>
<tr>
<td>Side lobes level</td>
<td>−14 dB typ.</td>
<td></td>
</tr>
<tr>
<td>Pointing accuracy</td>
<td>± 1°</td>
<td></td>
</tr>
<tr>
<td>Monopulse / slave tracking</td>
<td>continuous, unlimited</td>
<td></td>
</tr>
<tr>
<td>Azimuth rotation</td>
<td>+8.5° (factory configurable)</td>
<td></td>
</tr>
<tr>
<td>Preferential elevation angle</td>
<td>≥ 30°/s</td>
<td></td>
</tr>
<tr>
<td>Rotation speed</td>
<td>≥ 30°/s²</td>
<td></td>
</tr>
</tbody>
</table>

Mechanical characteristics

| Dimensions | (Height x Diameter) | 635 x 800 mm |
| Weight | < 35 kg |
| Vibration | MIL-STD 810B |
| Shocks | MIL-STD 810E |
| Electromagnetics design compliant with MIL-STD 461D |

Power supply

| Voltage | 230 VAC or 115 VAC ± 5% 50-60Hz |
| Consumption | typical 150W |

Environmental specifications

| Temperature range | Operating | −25°C to +44 °C |
| Storage | −35°C to +60 °C |
| Relative humidity | 100%, at 25°C |
| Rain | IP3 |
| Wind | 180 km/h |

Internal View

BASIC SUPPLIES

COM’TRACK is delivered with these basic supplies:

- 1 carrying case
- 1 set of cables
- 1 test result book
- 1 CDrom including:
  - A setup program running on Windows
  - GUI for the station monitoring & control
  - Installation, User, Maintenance Manual

OPTIONS

- Directional antenna with vertical polarization
- Narrow band receiving filter: 2250-2360 MHz
- Cables (Supply, RF, IF, AGC): 20m, 40m or 80 m
- Mechanical extender
- Computer

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