

GDT-2000

S/C-Band Ground Data Terminal Antenna System



Smiths Interconnect has a diverse line of rugged, high accuracy Directional Narrowband Systems that provide high data-rate Tactical Datalink communications for fixed ground applications and On-The-Move applications such as those encountered on military aircraft, naval vessels, and mobile ground vehicles. Our standard product line includes antenna system products that are scaleable in frequency, and offer superior performance for mission requirements in the L, S, C, X, Ku and Ka frequency bands.

The combination of small size, rapid deployment, high data rate performance, and dynamic capability directly benefit the tactical user community by providing a scaleable datalink communication asset able to fulfill future Wideband Line-of-Site, and Beyond-Line-Site secure communication at high data rates.

The GDT antenna assembly consists of a positioner, controller, and parabolic feed assemblies that provide the critical command, control, and sensor connectivity of the TUAV to the ground control station.

The microprocessor-based Antenna Control Unit (ACU) is designed to provide cost-effective control of the antenna positioner assembly. The integrated controller can be operated over an RS-232, RS-485, Ethernet or Fiber Optic interface.

Tactical Datalink Communications for Fixed Ground and On-the-Move Applications

Features & Benefits

- Dual S/C-Band Capability
- L-Band Capability Available
- Largest Reflector Aperture in Class – 4 foot
- High Gain Performance
- Rugged and Lightweight – 15 min. Setup time
- Adjustable Tripod for Ground Slope Variation
- Transit Cases Available for Transport

Application

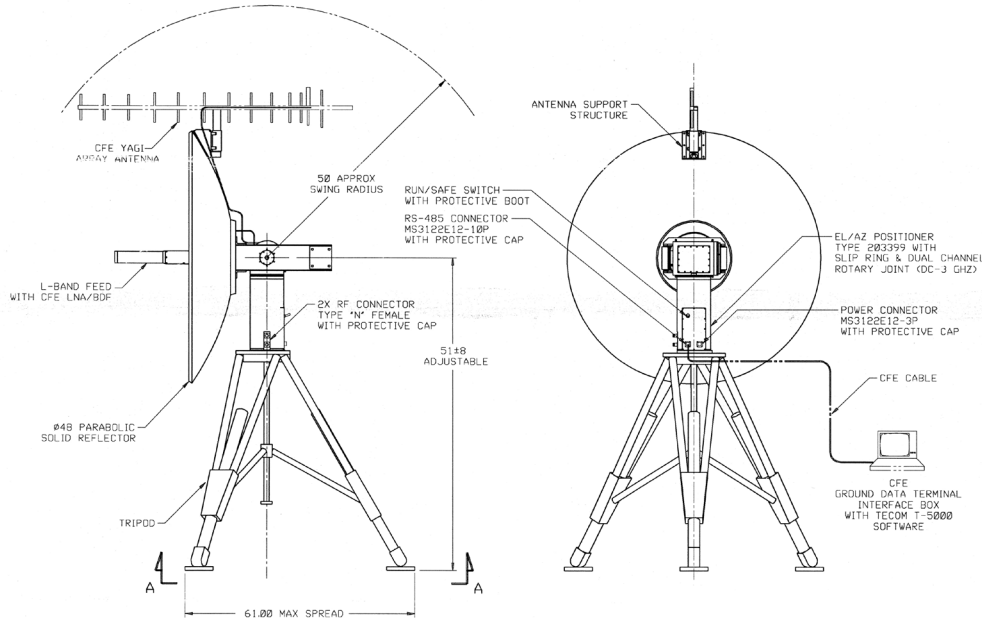
- Tactical Data Link (L/S/C-Band)
- Data Relay
- Homeland Security/Border Surveillance

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Specifications subject to change without notice.
Export license may be required to ship to some countries.

Technical Characteristics

Ground Data Terminal Schematic



Antenna Specifications

Frequency

S-Band & C-Band (CONUS)

2.4 – 2.485 / 4.4 – 4.95 GHz

S-Band & C-Band (OCONUS)

2.4 – 2.485 / 5.25 – 5.85 GHz

Aperture Gain

S-Band

+25 dBi

C-Band (CONUS)

+30.5 dBi

C-Band (OCONUS)

+32 dBi

Polarization

Linear Vertical

Power Handling Capability

S-Band

10 Watt CW

C-Band (CONUS)

1 Watt CW

C-Band (OCONUS)

1 Watt CW

Dynamic Capability

Velocity

12°/sec

Acceleration

20°/sec²

Positioning Range

Elevation

-5° to +90°

Azimuth

360° (continuous)

Antenna Pointing Accuracy

< 0.3°

System Weight (packaged in transit cases)

< 150 lbs.

Communication Interface

RS-485 standard (RS-232, RS-422, Fiber Optic, Ethernet also available)

Power Interface

115/230 VAC, 50/60, 300W peak, 100W avg. @115 VAC