



## 10-Inch Tactical Data Link System for Fixed or On-the-Move Applications



### STANDARD FEATURES:

- 14.4–15.35 GHz Frequency Coverage
- 28.3 dBic Mid-Band Gain
- RHCP or LHCP Polarization
- L-, C-, X- & Ka-Band Variants Available
- Rugged, High-Dynamic 2-Axis Positioner
- Built in ACU, Servo & Power Supply
- RS-232, RS-485, Fiber & Ethernet Controllable
- Lightweight, Rigid Structure, Less than 15 lbs.
- Manpack Portable, Tripod Mount Available

### APPLICATIONS:

- Tactical Common Datalink
- Communications – Fixed & On-the-Move
- Border Surveillance
- Signal Intelligence
- Airborne Data Relay

TECOM has a diverse line of rugged, high-accuracy directional narrowband systems that provide high data-rate Tactical Common Datalink (TCDL) communications for fixed-ground applications and on-the-move applications such as those encountered on military aircrafts, naval vessels and mobile ground vehicles. Our standard product line includes antenna system products that are scalable in frequency, and offer superior performance for mission requirements in the L, S, C, X, Ku and Ka frequency bands.

TECOM's datalink product line delivers high data-rate communications capabilities to current operational forces while providing a solid architectural baseline for the migration of these systems to support future Homeland Security objectives and important military programs such as Future Combat Systems (FCS) and Warfighter Information Network–Tactical (WIN-T).

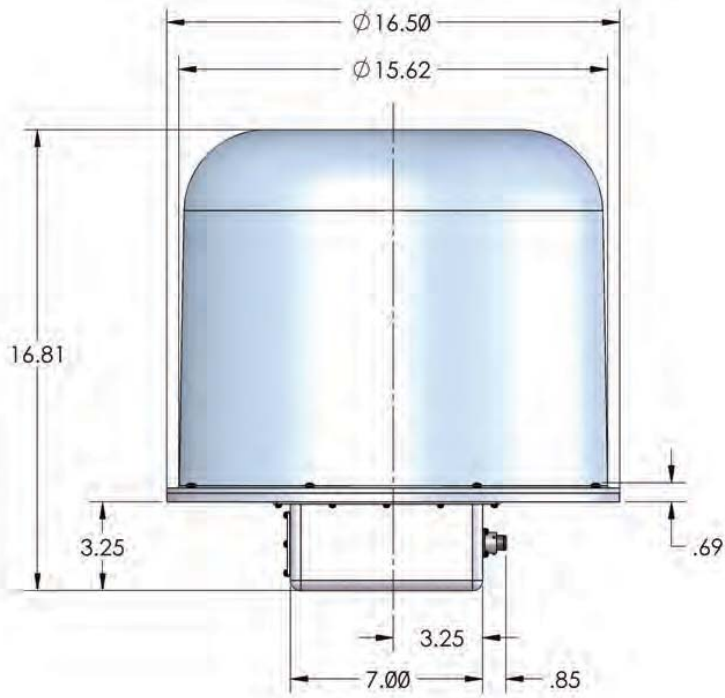
TECOM's 10-inch TC DL antenna system operates from 14.4-15.35 GHz in Ku-Band. The antenna system includes a 10-inch planar-array feed assembly, a 2-axis, low-profile gimbal, integrated Antenna Control Unit (ACU), servo amplifier, and power supply module. The ACU, servo amplifiers and power supply are modular components integrated within the available antenna volume.

TECOM's microprocessor-based 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. The Windows-based software provides a programmable man-machine interface and allows for complete control of all antenna system functionality and operational modes that include standby, point, step, slew, jog, sector scan and program track.

The combination of small size, rapid deployment, high data-rate performance and dynamic capabilities directly benefits the tactical user community by providing a scalable datalink communication asset able to fulfill future Wideband Line-of-Site and Beyond-Line-Site secure communication at data rates exceeding 50 Mb/s.

An antenna radome and cables are provided with the antenna system, and a transit case can be supplied to protect these assemblies while in transit to the operations site. Additionally, the standard Ku-Band assembly can be outfitted with a complimentary L- or C-Band aperture to support legacy datalinks.

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Antenna Performance	
<b>Frequency</b>	14.4–15.35 GHz
<b>Gain:</b>	
Midband	28.3 dBic
Band Edges	25.4 dBic
<b>Beamwidth (3dB)</b>	7°
<b>Axial Ratio</b>	< 2.5 dB
<b>Sidelobes</b>	< -17 dB
<b>Motor Input Voltage</b> (Unregulated)	8-30 VDC
<b>Power Consumption:</b>	
Full-Power Mode	13 watts peak
Low-Power Mode	7 watts peak
Holding Power	2 watts peak
<b>Dynamic Capability:</b>	
Velocity	60°/sec
Acceleration	60°/sec <sup>2</sup>
<b>Weight</b>	15 lbs.
<b>Dimensions</b> (Includes Gimbal Unit with Integrated Controller)	See illustration

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