



## Features and Benefits

- **Integrated CDL terminal with high-gain antenna**
- **CDL specification compliant**
- **Transmit and receive data rates up to 44.73 Mbps**
- **Type-1 encryption**
- **Automatic switching to the integrated Omni antenna for close-range operations**

# Mantis II Ground Data Terminal

## Wideband RF Ground Terminal

Cubic's Mantis II is a new, high performance data terminal that supports long range, high data rate communications with airborne platforms equipped with a multitude of DoD standard Common Data Link (CDL) waveforms.

Designed for harsh environments, Mantis II can be deployed in less than 10 minutes providing ground forces with secure expeditionary communications. With Mantis II, real-time imagery, full-motion video, audio and other sensor data are instantly available to provide users with the detailed information they need in any military or peacekeeping mission. Additionally Mantis II performs automatic calibration, making remote set-up easy.

Mantis II provides data security through selectable Type-1 or AES-256 encryption to protect all information from exploitation. The Mantis II is able to maintain compatibility with legacy airborne transmitters utilizing a crypto bypass option.

Mantis II supports data transfers from Ku-band CDL-equipped aircraft, including Predator, Reaper, Sky Warrior, Fire Scout, Litening targeting pod and others. The Mantis II provides operating ranges to 250 nmi or more, depending on airborne terminal characteristics.

## Product Description

Mantis II implements the DoD's intelligence, surveillance, and reconnaissance data link standard, the Common Data Link, and enables data transfers to and from airborne data terminals at rates ranging from 200 kbps to 45 Mbps.

Based on a successful, off-the-shelf antenna design, Mantis II incorporates a full auto-tracking of maneuvering transmitters and quick recovery from momentary signal blockage.

## Waveform-Programmable

- STD-CDL
- BE-CDL Rev A / Rev B
- Tactical 1.6, 3.2, 6.4 and 466ER available



## Performance Characteristics

RF Band	
Ku-band digital TX and RX, 14.4 to 15.35 GHz	

Data Rates	
Full duplex 200 kbps – 44.73 Mbps (upgradeable to 274 Mbps)	

Antenna	
40 dBi gain, 77.8 dBm max EIRP	
1.2 degree 3 dB beamwidth	

Encryption	
NSA Type-1	
Commercial AES-256	

Video Compression/Decompression	
MPEG-2	
H.264/MPEG-4	

Environmental Specifications	
Environmental	MIL-STD-810G
EMI/EMC	MIL-STD-461F
Operating temperature	-30°C to +60°C

Tracking	
RF Tracking (for operation in GPS denied environments)	
Navigational Tracking	

## Physical Characteristics

Antenna Group	
Size	48" dish on 45" tripod
Weight	170 lbs
Power	475 W, 110-220 VAC (at 10 W output)

User Interface Group (UIG)	
Weight	25 lbs
Power	70 W, 110-220 VDC

User Interfaces	
RS-232/422	
DS-101 / DS-102 key fill interface	
Analog RS-170 video	
Ethernet: 10/100 BASE-T Ethernet interfaces	

Size & Weight	
UIG Weight	20" D x 19" W x 8.5" H 25 lbs
GDT Case 1 Weight	47.3" D x 24.3" W x 23.6" H 125 lbs
GDT Case 2 Weight	39" D x 23" W x 17.3" H 128 lbs
GDT Case 3 Weight	31" D x 25.3" W x 26.5" H 75 lbs
GDT Power Supply Weight	12" D x 8" W x 10" H 33 lbs