

# GDT100

The GDT100 Ground Data Terminal is a reliable all weather system for long distance line-of-sight missions.

**THREOD**  
SYSTEMS

## Key features:

- Modular solution with many mounting and usage possibilities
- Can be equipped with most OEM data-links
- Completely weatherproof
- Various accessories to choose from
- Short setup time

Portable generator



Customisable radio  
module

Many dish, yagi and  
omni antenna options

Pan-tilt unit

Heavy duty tripod

Optional Thread  
Systems UPS1 power  
module

Optional Thread Systems  
CM1 connectivity module



# GDT100 Specifications



*Note! GDT100 range can be further enhanced by using various masts and boom-lift systems. See GDT150 datasheet for reference. Contact Threod for options and quotations.*

Radio module	
<b>Primary datalink</b>	
Frequency range	2200-2500MHz <sup>1</sup>
Max TX power	16W (42dBm)
Waveform	Mobile Networked MIMO (MN-MIMO)
Modulation	BPSK, QPSK, 16-QAM, 64-QAM
Channel Bandwidth	5/10/20 MHz
Encryption	AES256
Tuning step size	1 kHz
Data rates	100+ Mbps
No. of RF channels	2
Features	Spatial Multiplexing, Space-Time Coding, TX Eigen Beamforming, RX Eigen Beamforming
<b>Back-up datalink</b>	
Frequency range	403-473MHz <sup>1</sup>
Max TX power	1W (30dBm)
Modulation	4FSK, GMSK (half-duplex)
Channel bandwidth	12.5/25 kHz
Encryption	AES128
Tuning step size	6.25 kHz
Data rates	9600-19200 bps
No. of RF channels	1
Features	FEC, RSSI indication, half-duplex operation (separate frequency for RX and TX), channel listing
<b>Interfaces</b>	
Physical interface	Amphenol 62IN series connector
Signaling interfaces	Ethernet RS232
Antennas	
<b>Primary datalink antenna</b>	
Frequency range	1700-2700 MHz
Polarization	Dual, slant-polarized
Antenna gain	23dBi
Maximum input power	40W
Range	100km+ LOS
<b>Back-up datalink antenna</b>	
Frequency range	390-480MHz
Polarization	Vertical
Antenna gain	9dBi
Maximum input power	100W
Range	100km+ LOS
Tracking system	
Range of movement (azimuth)	Azimuth: 360°, continuously Elevation: -20° to +70°

Angular velocity (azimuth)	Azimuth: 0.1°/sec to 20°/sec Elevation: 0.1°/sec to 10°/sec
Position accuracy	±0.1°
Mounting options	Tripod, boom-lift
Supply Voltage	24VDC
Power Consumption	80W peak, 30W nominal
Physical interface	Amphenol 62IN series connector
Signaling interface	Ethernet
UPS power module	
Input voltage	85-264VAC
Output voltage	24VDC (regulated)
Maximum output current	20A
Buffer period	3h
Physical interfaces	Weald LMV series connector (input) Amphenol 62IN series connector (output)
Camera module	
Resolution	1080p
Zoom	18x optical
Frame rate	30/25 fps
Horizontal angle of view	59-4°
Features	Autofocus, internal memory, configurable over network, automatically removable infrared-cut/pass filter (day and night mode), aligned with antenna direction
Environmental	
Operating Temperature	-20 °C to +50 °C
IP rating	IP65
Standards	
Environmental	MIL-STD-810G
Features	
Tracker can be mounted on a tripod (mobile) or a boom-lift mast system (extended range)	
HD camera for visual tracking and tracker calibration	
Integrated GPS receiver for automatic antenna tracking	
API support for integrating with third party software	
Tracker system can include UPS	
Tracker can be interfaced with Threod CM1 connectivity module for additional ethernet ports and fiber-optic communications	
Rugged design for all weather operations	

*Note! Other datalink options available. Other frequency ranges supported on request, contact Threod for options and quotations*



GDT100 can be used with Threod Systems CM1 and UPS1 modules



GDT100 set