

Rapid Deployment GSM/GPS Tracking Unit (RDT)

Covert Vehicle/Asset Monitoring, Tracking, Security and Recovery



FEATURES:

- Complete, low-cost device
- Water-resistant housing
- No external wires or antennas
- Easy installation
- Size allows discrete placement
- Worldwide GSM coverage
- Enhanced GPS performance
- Battery powered
- 90 day operation on 4 AA batteries

Introduction

Until now, personal vehicle/asset tracking has been an expensive service, within the means of only a small percentage of customers. The **RDT** changes all that. As the world's first truly affordable and highly reliable mobile tracking device

The **RDT** enables automatic and autonomous periodic position reporting and cost effective wireless communications for covert personal, vehicle monitoring and security, and stolen vehicle recovery.

Compact and Affordable

A completely self-contained end-user device, the **RDT** is the size of a white board eraser and weighs 7.2 ounces without batteries. It is encased in a durable, lightweight, water-resistant housing. Internally, a GPS receiver and GSM modem are integrated onto a single board and are controlled by a common microprocessor.

The unparalleled level of integration, unique to the unit, enhances functionality and reliability, and enables the device's small footprint and low cost. The **RDT** periodically transmits position reports at a user selectable interval while in motion, upon demand or at a regularly scheduled time, all of which promotes power efficiency and dramatically reduces an application's communications costs. The device can be signalled to alter reporting frequency according to application or end-user requirements.



Less Cost, More Discrete

The **RDT** can be instantly placed inside or outside a vehicle's passenger compartment. As a self-contained, battery-powered unit that has no external connections or antennas, it eliminates the need for time-consuming and expensive installations associated with many other tracking devices. The enhanced GPS sensitivity of the **RDT** permits the device's placement in areas where conventional GPS may not work. It can be easily concealed inside or outside a vehicle to prevent tampering or unauthorized removal, yet still be removed quickly because it has no external attachments.

Broad and Reliable Coverage

The **RDT** is founded upon established technologies: GPS, which is truly global in nature, and GSM, which is the foremost wireless communications technology with the largest geographical coverage and the greatest number of subscribers. The **RDT** offers not only world-class automotive-grade GPS performance, but employs an enhanced GPS sensitivity mode that allows limited operation indoors and in places where traditional GPS receivers will not work. It also supports the three major GSM frequency bands, specifically 900/1800 MHz (DCS) worldwide and 1900 MHz (PCS) in the United States.



Cost-effective and Secure Transmissions

Periodic position reports are sent as SMS (short message service) text messages over the GSM network, thereby providing secure and low-cost data transmission, while optimising the battery life of the **RDT** device.

Power Options Deliver Extended Performance

The **RDT** can operate for up to 90 days on a set of four AA batteries during normal use with good GPS visibility. Easy to access batteries provide simple and low-cost maintenance and operation. For applications requiring more frequent position reports or other communications than can be adequately supported with batteries, the device can be connected to external power by using the optional Vehicle Adapter Module.

Modularity

The device's modular architecture allows for rapid development of new applications. Future generations of the device will include a variety of plug-in modules, provided by either Trimble or its partners, for added functionality.

Unmatched Service and Support

As the world's leader in GPS technology since 1978, Trimble the manufacture has an established worldwide presence. They are dedicated to providing systems integrators and service providers with 24/7 service and top-notch support in the form of training, application development and customisation for the **RDT**

Accessories



RDT

Includes basic unit and battery pack for four AA batteries



Magnetic Mounting Bracket

Magnetic Metal bracket for rapid installation

Specification

Key Features:

Complete packaged end-user device
On demand polling and scheduled reporting
No external connections or antennas
GSM 900/1800 MHz (DCS) and 1900 MHz (PCS)
Position and status reports via SMS
Battery-powered

Physical:

Assembly: Injection moulded plastic with integrated battery pack
Size: 143.3mm x 76.2mm x 36.7mm
5.78" x 2.99" x 1.44"
Weight: 205 grams (7.2 oz) not including batteries
300 grams (10.5 oz) with 4 AA alkaline batteries

GSM:

GSM Normal MS-SMS data only
900/1800/1900 Class 4 (2W) at 900 MHz (EGSM)
Class 1 (1W) at 1800 MHz (GSM 1800)
and 1900 MHz (GSM 1900 PCS)

SIM 1.8V/3V

Type Approvals **FCC Part 15, FCC Part 24**
Industry Canada
CE MARK
ECR & TTE Type Examination

GPS:

General: L1 (1575.42 MHz) frequency, C/A code
12-Channels, 48 Correlators
Sensitivity: Minimum -136.0 dBm Acquisition without external assistance
Accuracy: Horizontal <6 meters (50%)
Altitude <11 meters (50%)
Velocity 0.06 m/sec
Acquisition: Signal Power -130.0 dB
Hot Start (50%) <24 sec (-130.0 dB),
Warm Start (50%) <38 sec (-130.0 dB), <400 sec (-136.0dB)
Cold Start (50%) <90 sec (-130.0 dB)
(acquisition time depends on GPS signal strength and where the unit is fitted)
Dynamics: Acceleration 4g (39.2 m/sec²)
Motional jerk 20 m/sec³
Datum: WGS-84

Environmental:

Temperature: -10°C to +55°C (operating)
Humidity: 5% to 95% RH non-condensing at +40°C
Casing: IP55 when used with batteries
Vibration: 0.008 g²/Hz 5 Hz to 20 Hz
0.05 g²/Hz 20 Hz to 100 Hz
-3 dB/octave 100 Hz to 900 Hz
Shock: Operational 40g for 11milliseconds
Non-operational 75g for 6 milliseconds

Electrical Characteristics:

Primary Power: Four AA batteries
Battery Life: Up to 90 days (10 position reports per day, GSM coverage, -130dBm GPS)
Connectors: None when battery powered