



Portable Data Collector

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PDC301A

General

TeraHop's Portable Data Collector (PDC) is a self-contained wireless communications device. It is used to transmit vital data about an asset, whether attached to a piece of equipment or carried by a person. PDCs are compact and fully ruggedized for the harsh environments often found at industrial yards and construction sites.

Operation

When attached to a piece of equipment or carried by personnel, the PDC301A will collect various data items about the asset and relay that data to a central database for display and analysis. The PDC monitors engine runtime, critical in executing timely preventative maintenance, as well as detect general asset presence/non-presence at the site. Also, it can monitor a single contact switch that can be configured to represent the operation of any auxiliary system.

The PDC301A operates independently of the equipment's own power supply using a 2-year internal battery. Installation is fast and easy with no external antennas to mount. Engine runtime installation is done by simply bolting the PDC to the vehicle and then running and attaching the supplied cable to the current mechanical runtime meter.

PDCs use TeraHop's unique message hopping technology to expand site coverage while maintaining low power consumption. This enables PDCs to penetrate into buildings, tunnels and other typically radio reception-challenging environments.

Portable Data Collector Overview

The system uses a portable Gateway Router (GR) to collect data from the PDCs and relay it to a secured central database. The GR is small, rugged, and portable. It can be taken to the site in any vehicle or permanently affixed to a structure at the site. It collects and stores all the accumulated data from the asset's PDCs and then transmits that data through a standard Wi-Fi access point to the customer's enterprise application.

About TeraHop Networks

TeraHop Networks is a leading manufacturer of asset monitoring and portable networking devices. Companies in the construction, transportation, manufacturing, emergency response and mining industries use its patented, non-subscription-based technology to cut costs and reduce waste by monitoring the location and condition of their mobile assets and personnel. TeraHop's products are ready to install "out of the box" without requiring line power, Wi-Fi networks or cellular connectivity giving companies a hassle-free, reliable and affordable way to integrate existing software and platforms and extend their current software investment. Privately held, TeraHop has offices in Seattle, Washington and Alpharetta, Georgia. For more information, visit <http://www.terahop.com>, email info@terahop.com, or call (678) 455-8844.

FEATURES AND BENEFITS

- Monitors asset presence and engine runtime to optimize equipment utilization and reduce unscheduled maintenance and repair costs.
- Monitors a single contact switch customizable for any auxiliary system.
- No switches or buttons to set. Operates 24/7 without user intervention.
- 2 year battery life with 30-day low battery alerts.
- Fully rugged and harsh environment certified.
- Ready to use out-of-the-box. Requires no configuration and minimal training.

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Technical Specifications



PHYSICAL CHARACTERISTICS:

Dimensions: 2.9" x 4.3" x 1.4"

Weight: 6.4 ounces

Digital I/O: One 4-pin serial connection to contact switch, one 16-pin serial configuration port.

Comes with 15 ft 4-conductor 24 AWG cable with connector

ENVIRONMENTAL PERFORMANCE:

Operating Temperature:
-25°C to +55°C (-13°F to +131°F)

Acceptable Storage Temperature:
-50°C to +105°C (-58°F to +221°F)

Recommended Storage Temperature: 30°C

Humidity: 100%, condensing

Shock: 4-foot drop on concrete without damage

Immersion: 30 minutes in water of 1m per IP-67

Vibration: 30g, Z axis

Salt Fog: ASTM B 117-07 (21 days)

RUNTIME MONITOR:

Input: 6-60 VDC

Isolation: 5KV max.

Resolution: 0.1 hour

RF CHARACTERISTICS:

Frequency/Range: 2.4 GHz, unlicensed (Globally)

Antennas: Internal

Transceiver 1: Proprietary wake-up and data transfer radio

Transceiver 2: Class 1 Bluetooth*

Hopping (Wireless Routing): Up to 16 Hops

Regulatory Compliance: FCC Part 15C, Class B

CONTACT SWITCH:

Recommended Switch: Low current dry contact normally open.

Resolution: 0.1 hour

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