

# MultiTrak™

A Rugged GPS/UHF RFID/4G LTE/BLE/WiFi Reader



## Real-time Asset Tracking with Mobile Communications

MultiTrak™, a one-of-a-kind, PTCRB-certified hybrid tracking solution that integrates multi-sensors, GPS, UHF RFID, BLE, WiFi and 4G LTE cellular capability. MultiTrak (VRR1ADCM) is designed for remote RFID and Internet of Things (IoT) monitoring. The reader and antenna are enclosed with a rugged, severe weather and waterproof IP67 standard enclosure for outdoor and hazardous use.

Customers can build Internet-of-Things (IoT) applications leveraging the supported Bluetooth Low Energy (BLE), WiFi and 4G LTE connectivity. Store and forward capability ensures that transactions will not be missed, making it ideal for applications that require Cloud interfacing or where the network may not be available. All readers from Venture Research utilize a common API protocol with automatic support alerting and self-diagnosis.

## Applications

Waste & Hazardous Waste Management

Construction

Parcel Pick-up

In-Truck Asset Monitoring

Vehicle Tracking

Logistics

Yard Management

## Product Features

| Features  | Benefits  |
|---|---|
| UHF RFID  | Real-time location and asset tracking with a built in Gen 2 RFID antenna.   |
| GPS   | Built-in GPS provides the most accurate GPS tracking using the latest satellite infrastructure.   |
| Bluetooth Low Energy (BLE)                                      | BLE is included to read critical assets.  |
| WiFi  | 802.11a/b/g/n incorporated with automatic swap from cellular when in range of an access point.  |
| 4G LTE PTCRB Certified  | MultiTrak is PTCRB certified to allow connection to preferred carriers such as Kore, AT&T, Sprint, T-Mobile and other 4G LTE providers.   |
| Direct Cloud Communication                                      | HTTP posting with store and forward capability ensures that transactions will not be missed.  |
| Vehicle Mountable with Regulated Power Supply Accepts 12V-24V   | Can directly connect to all vehicles or industrial equipment.   |
| Integrated UHF antenna and additional secondary Antenna Options | Provides capability to add an additional antenna to increase coverage where needed.   |
| IP67 Rated Anti-Static Housing                                  | Waterproof and can survive in harsh environments.   |
| Linux Lightweight Package Management                            | Designed for embedded devices, allowing users to easily install and uninstall any supported packages and minimize bandwidth.  |
| Real-time Support 24 x 7 x 365                                  | All products from Venture Research contain automatic alerting and self-diagnosis for real time monitoring of the system operability backed by our 24x7x365 support infrastructure |

# Specifications

## Electrical Specifications

|                      |   |
|----------------------|---|
| Model                | VRR1ADCM  |
| UHF Reader           | 1 Watt US – GEN2 2 Port UHF RFID Reader, ETSI also available                        |
| Console Port         | RS232-interface   |
| 4G LTE               | PTCRB Certified for carriers: AT&T, Sprint, T-Mobile, Kore                          |
| GPIO                 | Software, Optional Proximity Sensor, Mag Switch, Contact Closure or CAN Peripherals |
| UHF Antennas         | One internal - 5dBi patch antenna, External RP-TNC Antenna Port                     |
| Power                | Waterproof power cable to 12-24V vehicle power. Optional 110V power supply.         |
| LED Indicators       | Red, White, and Blue outdoor visible diagnostic LEDs                                |
| BLE                  | 2 ibeacon and Eddy-Stone compatible   |
| GPS                  | GPS and GLONASS satellite constellation support                                     |
| Wi-Fi                | Dual Band - MIMO - a/b/g/n  |
| CAN                  | External Peripheral support through CAN Bus   |
| Cloud Communications | Direct autonomous HTTPS updating to a REST interface                                |
| VPN                  | Built-in secure VPN support for maintenance   |
| Operating System     | Linux embedded, Yocto build   |

## Dimensions

|                             |                      |
|-----------------------------|----------------------|
| Cable Cap                   | 3"L x 9.5"W x 2"D    |
| Single Antenna Reader       | 11.5"L x 9.5"W x 2"D |
| Single Antenna Reader w/cap | 14.5"L x 9.5"W x 2"D |

## Options

| Power Configuration  |                           |
|--|---------------------------|
| Power supply for 110 VAC w/ molex connector                            | VRR1ADCM-OPT-PW-110       |
| Peripherals  |                           |
| External Photo Eye   | VRR1ADCM-OPT-EPHOT        |
| External IP-67 Rated Annunciator                                       | VRR1ADCM-OPT-ANNUNC       |
| External Proximity Monitor   | VRR1ADCM-OPT-PROX         |
| Magnetic Switch  | VRR1ADCM-OPT-MAG          |
| Observation Button: 3 buttons with LED's, 50' cable CAN Bus connection | VR-OPT-OBS                |
| External Antennas  |                           |
| Secondary RFID Antenna Connection                                      | VRR1ADCM-OPT-RFIDANT-E    |
| Forklift Arm Dual Antenna  | VR1-OPT-WIFIGPSLTE-ANT    |
| Tri-Band Antenna with annunciator                                      | VR1-OPT-TRIBAND           |
| MIMO LTE w/GPS Antenna   | VR-OPT-LTEMIMOANT         |
| Mount  |                           |
| 2 Flat Bracket Mount   | VRR1ADCM-OPT-MT           |
| Forklift Arm Dual Antenna Mount  | VR1-OPT-WIFIGPSLTE-ANT-MT |
| Cable Cap  | VRR1ADCM-CABLE-CAP        |

## Warranty

- 1 year parts and labor NEMA4/IP67 Rated
- 24 x 7 x 365 support available with optional support program