VENTURE
Research Inc.

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 piont.
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 Slave 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 avaiable
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 maintenence
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	
Slave 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 avaiable with optional support program

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All Venture Research Inc. Products are proudly made in the USA.