VENTURE Research Inc.

Dock Door RFID/BLE Readers

RFID/BLE Solutions

Next Generation Dock Door Portal Reading Solution

The Dock Door Reader solution from Venture Research combines years of in field implementations with the state of the art in RFID and BLE tracking technologies. The unique design eliminates the need for floor mount stanchions and provides the ability to rotate the antennas into the truck, reducing dock to dock cross reads. To,iether with Venture Research's exclusive sensor technology for material movement monitoring, the Dock Door solution ensures accurate material tracking at the dock door.

High Gain Antennas for Challenging Material

The Dock Door solution from Venture Research incorporates the exclusive antenna array construction with high gain antennas that improves material penetration and dock coverage. The array also allows the RF power required to be turned down yet still retain adequate coverage over the material passing through the dock further reducing cross reads.

POE and WiFi Built in

The Portals are low power enough that they can be powered with POE (only 9 watts) or 12v but for ease of communications can be talked to wirelessly via Wifi. This provides the utmost in connectivity flexibility.

Automatic Sense Triggering to Reduce RF on Time

Built into the Dock Door portals are high performance motion sensors that sense when motion is at the dock and then turns on the RF. In addition, an optional exclusive truck in position sense ensures that RF is not turned on until the truck door is open. In a high count dock environment, these built in features keep the RF off at a dock door until it is needed.

Designed for the Cloud

The Dock Door Portal solution shares the same API (Application Programmers Interface) as all other Venture Research reader products. This simplifies interfacing and by using the built in DB_Delivery feature, can directly feed a cloud based REST interface without the need for middleware.

Optional Stack Light and Annunciator

Along with the extensive RFID and sensing features, an optional tri-color integrated Stack Light and Annunciator can be provided to provide operator feedback.

Product Features

Features	Benefits
Articulated Mounting Arm Construction	Eliminates floor mount implementations and allows antenna rotation
High Gain Antenna Array	Provides a read zone from floor level to 84" with tag readability from 1' to 12' in front of antennas
Built in Motion Sensors	Turns on RF for reading only when there is activity in the dock area
POE or WiFi with 12vDC power	Flexible wiring configuration
Venture Research HyTrak reader built in	Fully integrated. No antenna, RF cabling or wiring required
Additional USB, CAN and GPIO	Allows additional external stacklightsand monitors
Exclusive Truck Door Open Sense	Only turns on RF when the truck dooris open
Primary/Secondary option	Reduces costs by having only one sideof the door requiring the reader
Integral SD Storage Card	Allows virtually unlimited storage and application loading capability

Applications

- Order Ship Confirm
- Order exception management (wrong truck)
- Automated Receiving against ASN
- Productivity tracking
- Improves traffic management
- Critical asset tracking
- Automatic Compliance systems

24x7x365 Proacvtive Support

Venture Research maintains a world class support organization that can provide round-the-clock assistance. All hardware products of Venture Research contain automatic self diagnosis capabilities, and can be connected to SiteWatch, the Venture Research remote monitoring system, for real time monitoring of system operability and alerting on exceptions. This ensures non-stop operation for critical applications.

Venture Research Inc. | 3001 Summit Ave. Suite 100 | Plano, Texas 75074 | 1-866-RFID-111 | 469-246-4000

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

Dock Reader Electrical Specifications

Model	DOCK_RDR_M_001 - Primary DOCK_RDR_S_001 - Secondary
RFID Reader	1Watt (30 dBm) Class 1 Gen2 (ISO 18006c) reader, US (902-928 Mhz) (European frequencies ETSI - 865-868 Mhz/1/2 watt also available)
Power	48 or 56 v POE 10-48 v DC regulated - 10 W
RFID Ports	3 high gain antennas per portal - The secondary contains antennas only and no reader

Interfacing

Ethernet	10/100 Mbps (POE)
WiFi	WiFi (802.11 a/b/g/n), MIMO Antenna Support
BLE	Low Energy Bluetooth reading of iBeacon or Eddystone beacons
USB	Dual USB A, USB OTG
Serial	Console Serial Port with FTDI support
CAN BUS	1 Mbps CAN Bus Interface
SD Card	Up to 64 GB Storage
I/O	4 In (Sink or Source) / 8 Out Conditioned
Motion Detection	PIR Motion detection dual facing
Diagnostics LEDs	RGB Programmable

Operating System

Linux Build	Yocto project build(Android 4.x also available
VPN Support	Built in multiple end point VPN embedded secure client(s)
Programming	C, C++, Python, Node, Java
Cloud Computing	Store and Forward with all filtering/ aggregation being performed in the reader. Direct Web Service update capability using HTTP Post

Warranty

Parts and Labor	1 year, post 1 year maintenance agreement available

Specifications are subject to change without notice

Mechanical

66" H x 9.5" W x 2" D
High Impact Sleeve

Options

Mounting	Part Number
Floor Mount	DOCK_OPT_FLOOR
Articulated Arm	DOCK_OPT_ARM
Conduit Coupler	DOCK_OPT_COUPLER FLEX CONDUIT - 35'
Water Proofing - NEMA 4	DOCK_OPT_NEMA4 DOCK_OPT_FLEX

Power	Part Number
POE Injector - 48v	DOCK_OPT_POE_48
24vDC Power Supply	DOCK_OPT_DC_24

Communications	
4G LTE Module	DOCK_OPT_CELL
Carrier Service	DOCK_OPT_CELL_CARRIER

Peripherals	
External Input (PIR Motion Sense)	DOCK_OPT_EXT_PIR
External CAN Bus Stacklight	DOCK_OPT_EXT_STACK
Integrated Cap Stacklight	DOCK_OPT_CAP_STACK
LIDAR Truck Sense	DOCK_OPT_TRUCK_SENSE
LIDAR Directionally Sense	DOCK_OPT_DIRECTION

Cabling	
CANBUS Interconnect Cable 35'	DOCK-OPT_CAN_35'
Primary/Secondary RF/GPIO interconnect - 35'	DOCK_OPT_MS_CABLE
Serial Interface Cable to USB	DOCK-OPT-USB-SER

Operating System	
Open Embedded Linux	DOCK-OPT_OS-LINUX
Android 4.0	DOCK-OPT_OS_Android4

Notes:
- Cellular requires yearly service contract
- Specify service provider at time of order (AT&T, Verizon, T-Mobile, Sprint, Vodaphone, Kore)
- ETSI/EU - 865-868 MHZ Version available at extra cost

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