

RFR-RAIN-16-SMART-ADV-C

ADVANCED READER

The Advanced Reader is the pinnacle of the next generation of commercial smart reader series. This cutting-edge device provides system integrators and customers with an intelligent plug-and-play smart reader that boasts advanced features ideally suited for warehouse and logistics, retail, and others larger implementations requiring a 16 port reader.



KEY FEATURES & BENEFITS

- ▶ True plug and play. Start reading your tags automatically using a browser and the built in Zone Manager UI software on the Advanced Reader.
- ▶ Zone Manager UI software included.
- ▶ Store and access the data directly on the reader, on a server on-premise or in the cloud.
- ▶ Setup and receive JSON push notifications alerts to RF Rain Web Services (RWS), Amazon Web Services (AWS), or Azure based on custom rules such as tag detection.
- ▶ Read and store on the reader a large amount of tags at around 1000's tags in a few seconds.
- ▶ Multi-functional UHF RFID reader with combined camera and GPS data capture capabilities.
- ▶ Fully control, configure, and access the reader using the RF Rain
- ▶ Rest API. A Python, .Net, and C++ SDK's.

KEY FEATURES & BENEFITS

The RF Rain Advanced Reader (RFR-RAIN-16-SMART- ADV) is an award-winning device that boasts support for up to sixteen monostatic antennas, providing a tag read distance of over 80 feet with the use of a 9 dBiL antenna. Using a large number of ports available, it is possible to track up to sixteen zones using just one reader.

The reader comes equipped with several optional advanced features, including a camera, GPS, and access control. The reader Dense Reader Mode capabilities allows the reader to read thousands of tags in mere seconds and detect the movement of assets in and out of zones at a rapid rate.

Setting up the reader is a breeze using Built- in Zone Manager UI, which can be configured using any internet browser. The reader stores up to 200K unique events at a time, which is equivalent to a few weeks worth of data based on the application.

The RF Rain Advanced Reader is the perfect device to create the next generation of smart stores, enabling the tracking of movement inside multiple zones in a warehouse and much more. The reader comes with pre-installed built-in Zone Manager Software UI, eliminating the need for any programming.

APPLICATIONS

- ▶ Inventory Management
- ▶ Smart Cabinets with access control
- ▶ Asset Tracking
- ▶ Conveyor belts
- ▶ Doorway Implementation



DATA/CONTROL INTERFACE

Communication Protocol	RFRain Rest API Interface.
Software	The Zone Manager software comes pre-installed and pre-configured with the RFR-RAIN-16-SMART ADV. See extensive features' list from the RFR-ZM software specs.
RSSI	Yes.
Modes of operation	Server Mode: Entry and transit doorway, conveyor belt, overhead reader, large doorway requiring additional ports. Server Mode Enhanced: Automatically access user data, Extended EPC or TID data. Write Mode: Easily modify the content of user data or EPC info in bulk.
Brown-out Recovery	Yes.
Live Upgrade Capability	Yes.
Interface	Standalone: Configure and access the data using the built-in Zone Manager UI from any web browser.

RF INTERFACE

Regulatory	Support different regions based on the order number. Please refer to the information below.
Tag Protocol	EPC-global UHF Class 1 Gen 2 (ISO 6-18000C) with anti-collision, DRM, and advanced anti-jamming capabilities.
Antenna Connector	16 RP-TNC female monostatic ports.
RF Power Output	Adjustable from 10 dBm to 30 dBm power up to (1.4 W) per channel or the maximum that the region allows whichever is less.

ARCHITECTURE

RFID Processor	Indy R2000.
Memory	4 GB RAM, up to 64 GB Extended Flash.

POWER

DC Power required	DC Voltage: 5 V ± %5; DC power: 24W max when transmitting.
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PHYSICAL

Dimensions	6" x 11.2" x 15.2 / "2.00 x 28 x 5.8 cm.
Weight	3.2 lb / 1.5 kg.
Interface	GPIO, USB 2.0 x 2, Ethernet TCP/IP (RJ45), WIFI, Built-in Access Point, POE+.
Button	Power Push button.
Enclosure Material	Aluminum.
Mount Type	Four 4/1" Mounting holes.

ENVIRONMENT

Certification	US, Canada and other regions following U.S. FCC. Europe and other regions following ETSI EN 208 302 China , Korea , Malaysia.
Operating Temp.	-20°C to +65°C.
Storage Temp.	-40°C to +85°C.

PERFORMANCE

Max Tag Read Rate	Up to 700 tags/second.
Max Tag Read Distance	Up to 80 feet (24 m) with 9 dBiL antenna.
Max Tag Read Rate for moving object	100 assets at walking speeds. 25 assets a 25 mph speed.

OPTIONAL FEATURES

Hardware	GPS: External GPS available. Camera: 1 MP Camera. (GPS feature is not standard and must be requested when product is ordered. Access Control: Control access to a doorway. Alert: Send audible alerts based on a user alert setting. GPIO: 4 ports isolated. 5V/20mA.
Software	Zone Manager software (See Zone Manager specs).
Order Information	Based on the reader prefix RFR-RAIN-8-SMART-XX, pre-configured for the following regions: CE: European Frequency 865-868 MHz. NA: North American Frequency 928-902 MHz. KO: Korean Frequency 908.5-914 MHz. AU: Australian Frequency 915-928 MHz. CH: Chinese Frequency 915-928 MHz.