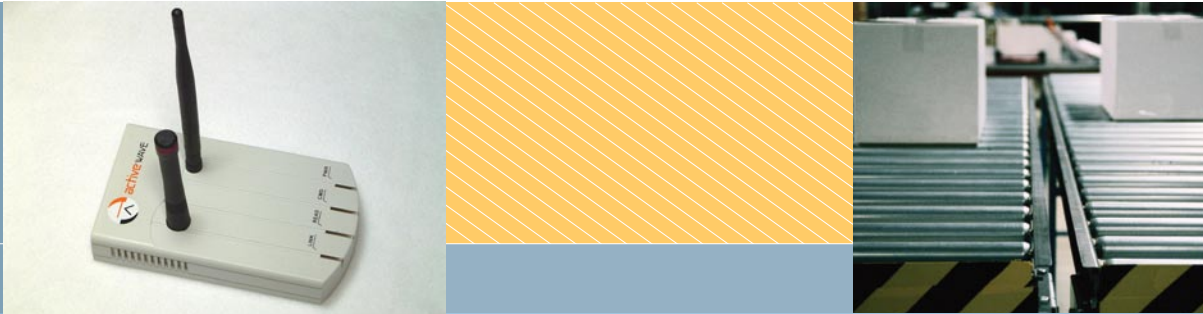


Standard Reader



Description

The ActiveWave Standard Reader interfaces the Host computer to the RF side of the ActiveWave RFID system.

The Standard Reader receives all RFID data transmitted by a tag. It deciphers this data and sends the information in real-time to the Host. Depending on the application, the Host can use this information to control access to restricted areas, track assets through a facility, or update inventory counts in a warehouse.

Along with the rest of our products, the Standard Reader was designed for easy setup, configuration, and use. When the Reader is turned on, it automatically sends a power-up message to the Host software. If using RS-232 communications, the Host will immediately display the Reader's address and allow the user to change it. If using Ethernet (802.3) or WLAN (802.11), a simple network search by the Host will identify all available ActiveWave Readers. The user can choose which of these Readers, or all Readers, to interface to the Host simultaneously.

Colorful LEDs on the front conveniently indicate the Reader's operation at all times. When configured as a Field Generator, this Reader can call tags periodically or when activated by a motion sensor.

Two input contacts and two output relays on the Standard Reader allow the user greater control over the entire system. Input devices such as door sense inputs and request to exit contacts can communicate directly through the Reader to the Host. Output peripherals such as electric door strikes, magnetic locks, CCTV, lights, and sirens can all be controlled automatically by the system. Doors can be unlocked immediately for valid tags and securely locked for unauthorized tags.

Two RF frequencies are used by the Reader to communicate to the system. The Reader transmits tag data using one frequency, and receives tag data using another frequency. This dual-frequency method allows for fast and reliable full-duplex communications.

For data integrity, all communication packets used by the Reader use parity bits and cyclic redundancy checks. These safeguards ensure that all data remains accurate.

Current Practice

Traditional method of Access Control, Asset Tracking, and Inventory Control are limited and outdated. Access Control methods range from security guards to employee badges that must be swiped or placed close to a passive RFID proximity reader. Tracking methods are either entirely visual - dependent on security guards or surveillance cameras - or too costly such as GPS. Inventory Control methods require much money for complex enterprise software, and much more time and manpower for physical counting. Barcode scanning requires line-of-sight, close distance, and clean, undamaged barcode labels. None of these traditional methods offers a solution that is completely hands-free, automated, reliable, and that can save your business thousands.

The ActiveWave Solution

ActiveWave's active RFID solution offers numerous advantages over traditional methods.

Valuable items are easily tracked throughout a facility by simply attaching an ActiveWave tag. Alarms are automatically generated for unauthorized movements through specified doors and at specified times. This same concept applies to tracking people as well. In fact, ActiveWave's Host software ties together both people and assets such that certain assets can only be moved by authorized people.

For inventory counts, ActiveWave tags can automatically wake up and report their presence on a periodic basis. If a tag misses its scheduled "check in" time, then the Host can generate an alarm so the loss can be investigated immediately. New items are added to the count by simply moving them into the warehouse. Imagine the savings of automated, hands-free, daily updates to your entire inventory.

How else can ActiveWave help your business?

With our technology, features, flexibility, and innovation, the sky's the limit...

Visit our web site at www.activewaveinc.com.

Functionality	Reads and writes RFID tags	
Multi-Tag Read Capability	Yes	
Transmit Frequency to Tag	433 MHz	
Receive Frequency from Tag	916 MHz, 927 MHz, or 868 MHz	
Range	30m (100 feet) to tag	
	85m (280 feet) from tag	
Host Communications	RS232	9600 - 115200 Baud
	Ethernet	10/100 Mbps
	WLAN (optional)	2.4 GHz, 5.2 GHz
Power	12Vdc, 1.5A	
Dimensions	without antennas	150 mm x 85 mm x 27 mm (5.9 in x 3.3 in x 1.1 in)
	with antennas	150 mm x 85 mm x 167 mm (5.9 in x 3.3 in x 6.6 in)
Weight	680 grams (1.5 lbs)	
Case Material	Impact resistant polystyrene with UL94-HB flammability rating	
Temperature	Operating	-35C to +50C (-31F to +122F)
	Storage	-40C to +85C (-40F to +185F)
Indicators	RF LED	On while receiving packet from tag.
	HOST LED	On while sending validated tag packet to Host.
	ACCESS LED	On while transmitting packet to tag.
	POWER LED	On when Reader is powered.
Connectors	Power	12Vdc, 1.5A
	Ethernet	RJ-45 female to Host
	MotionDetector	RJ-11 male
	Host Comm.	Same RJ-11 male to Host (DB9 female to Host optional)
	Input	Two contact sense inputs
	Output	Two isolated dry contact relay outputs



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NOTE: The information in this datasheet is subject to change without notice.
 Visit our web site at www.activewaveinc.com for more information on ActiveWave products.