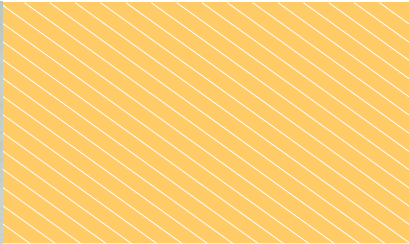


Small Reader



Description

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

The Small Reader is essentially a miniaturized version of the ActiveWave Standard Reader. Besides the physical size, the only difference between the two Readers is that the Small Reader does not have any input contacts or output relays.

The Small 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 Small Reader was designed for easy setup, configuration, and use. When the Reader turns 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 Readers. The user can choose which of these Readers, or all Readers, to interface to the Host.

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 RF frequencies are used by the Reader to communicate to the system. The Reader transmits data using 916 MHz (868MHz for Europe), and receives data using 433 MHz. 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Traditional method of Access Control, Asset Tracking, and Inventory Control are limited and outdated.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	67 mm x 108 mm x 28 mm (2.6 in x 4.3 in x 1.1 in)
	with antennas	67 mm x 108 mm x 159 mm (2.6 in x 4.3 in x 6.3 in)
Weight	128 grams (4.5oz)	
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
	Motion Detector	RJ-11 male
	Host Comm.	Same RJ-11 male to Host



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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.