

# MARS-1

## Multiple Antenna Reader System-1



### Overview

The Multiple Antenna Reader System (**MARS-1**) is an RFID reader-writer designed to operate a single external antenna and to meet the requirements to verify, inventory, monitor and control a large number of valuable items located in one position or moving on a conveyor at high speed.

The **MARS-1** is a high performance system for PJM StackTag® and PJM ItemTag® RFID tags. It provides fast and reliable operations with different external antenna types.

### Product Description

The **MARS-1** operates with a single antenna and is particularly well suited to gaming, jewelry, document management, pharmaceutical and retail applications.

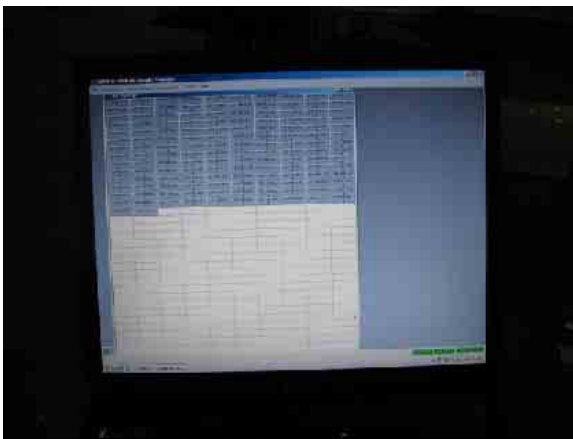
#### The **MARS-1** features:

- The ability to identify, read and write reliably to over 100 tags in 1-3 second
- Reliable identification of tightly stacked and overlapping or touching tags
- Fast operation with 2 reply channels
- Operates PJM StackTag® and PJM ItemTag® simultaneously
- A powerful processing platform allowing for stand-alone reader operation
- Very good connectivity offering both Ethernet and USB interfaces
- Complies with ISO/IEC 18000-3 Mode 2



## Specification

Read and write operations	
No user-serviceable parts	
ISO/IEC Compliance	18000-3 Mode 2
Operating Frequency	13.56 MHz
Number of Reply Channels	2
Command Data Rate	424 kbit/s
Reply Data Rate	106 kbit/s per channel
Number of External Antennas	1
External Antennas (custom design is available on request)	Single axis antennas with dimensions: Round 60 mm diam. and 124 mm diam. Rectangular 60 x 420 mm, 120 x 240 mm and 202 x 352 mm
Antenna Connection Cable	1.5 m
External Dimensions (L x W x H)	270 x 196 x 46 cm with fixed mounting brackets
Net Weight	1.5 kg (without external antennas)
Low Voltage Input	12 VDC @ 1.5 A
Operation environment	Indoor use
Temperature range	+10°C to +45°C
Humidity	10% to 80% (non-condensing)
Recommended Minimum Host Computer Requirement	Windows XP SP2/ 500 MHz CPU/ 128MB RAM
Host Interface	USB and Ethernet



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