MAGELLAN
TECHNOLOGY

MARS-24
Multi Antenna Reader System

Overview

The Multiple Antenna Reader System (**MARS**) is an RFID reader/writer designed to meet the requirements to verify, inventory, monitor and control a large number of valuable items located in display cases, cabinets, presentation areas and on gaming tables and shelves or on a conveyor at high speed.

The **MARS-24** is a high performance system for PJM StackTag® and PJM ItemTag® RFID tags. It provides high speed operations with multiple antennas.

Product Description

The **MARS-24** is capable of operating up to 24 antennas. These antennas can be arranged as required to operate 24 separate read/write stations or any combination of multi-axis stations that will identify tags in multiple orientations.

The **MARS-24** is particularly well suited for applications in

- gaming
- jewelry
- document management
- pharmaceutical sectors
- retail

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The **MARS-24** features:

- The ability to identify, read and write reliably to up to 600 tags per second

- Reliable identification of tightly stacked, overlapping or touching tags

- Capable of writing reliably a unique 96-bit number such as an Electronic Product Code (EPC) at a rate of 50 tags per second

- Ability to identify and read 96-bit numbers at a rate of 250 tags per second

- Operates PJM StackTag® and PJM ItemTag® simultaneously

- A powerful processing platform allowing for stand-alone reader operation

- Ability to detect the movement of tags between read and write stations (antennas) instantly

- Removal of tags from the reader sets off an alarm signal (custom software feature)

- Very good connectivity offering both Ethernet and USB interfaces

- General purpose digital I/O Interface

- Complies with ISO/IEC 18000-3 Mode 2

Specifications

- Read and write operations

- No user-serviceable parts

- ISO/IEC Compliance: 18000-3 Mode 2

- Operating frequency 13.56 MHz

- Certified for FCC, CE, CSA/UL, Canadian and Australian standards

- External dimensions (L x W x H): without mounting brackets: 380 x 180 x 80 mm

- Net weight: 3 kg (without external antennas)

- Low voltage input: 12 VDC @ 2.5 A

- Operation environment: Indoor use

- Temperature range: +10°C to +45°C

- Humidity: 10% to 80% (non-condensing)

- Minimum host computer requirements: Windows XP SP2/ 500 MHz CPU/ 128MB RAM

- Host interface: USB and Ethernet

- Command data rate of 424 kbit/s

- Reply data rate of 106 kbit/s per channel

- Number of reply channels: 8

- Number of external antennas: up to 24

- Antenna connection cable of 1.5 m length

- Single axis antennas with dimensions: Round: 60 mm dia. and 124 mm dia. Rectangular: 60 x 420 mm, 120 x 240 mm and 202 x 352 mm (special antennas are available on request)

For further information on technology, delivery terms and conditions and prices please contact your nearest Magellan Technology office:

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About Magellan
Magellan Technology Pty Ltd, Sydney, Australia, is a technology developer, manufacturer and licensor of advanced read/write 13.56 MHz RFID systems. Magellan designs and offers RFID chips, inlets, a complete portfolio of reader/writers and operating software. Magellan's Phase Jitter Modulation (PJM) technology complies with the International Standard ISO/IEC 18000 Part 3 Mode 2.