

READER PRODUCTS

Intellitag® 500 Series

Microwave OEM Reader Products

Features

- **Fixed reader/programmer board set designed for integration into OEM controller or as option to Intermec 2100 UAP**
- **Provides RFID data collection integrated into local area network when configured as option to Intermec 2100 UAP**
- **Spread-spectrum frequency-hopping RFID reader/programmer board set coexists with RF data collection network**
- **Wired or wireless connection through 2100 UAP**
- **Rugged industrial environment design**
- **Unlicensed RFID readers and tags using Intellitag 500 series microwave OEM products can be integrated for use in applications that require read ranges up to 2.5 meters (8.2 ft)**



Intellitag 500 reader/programmer board sets are offered for integration into radio frequency identification (RFID) solutions requiring read range, multitag sort, read/write, and memory capacity not provided by older, less flexible proximity technology. The fixed reader/programmer board set is designed as an option for the Intermec 2100 Universal Access Point (UAP), but it may be integrated into other microcontroller-based systems.

Readers can be programmed for read only or read/write operation. A powerful anticollision algorithm allows tags up to 50 tags per second to be scanned, regardless of the number of tags in the read zone.

Intermec's Amtech Systems Division, with over a decade of success designing, producing, installing, and supporting RFID solutions worldwide, is developing a range of Intellitag 500 RFID inserts, tags, scanners, and programmer subsystems for availability beginning in 1999.

These products are available to Intermec systems integration partners in established transportation and security-access RFID applications, as well as growing applications in supply-chain management, retail operations, manufacturing, logistics, health care, and many more.

Amtech Systems Division

Intermec
Technologies Corporation

Intellitag® 500 Series Microwave OEM Reader Products

COMMUNICATIONS

Frequency

Fixed reader/programmer board set only: 2.45 GHz unlicensed FCC spread-spectrum frequency-hopping

Intermec 2100 UAP with fixed reader/programmer module: 2.45 GHz unlicensed FCC spread-spectrum frequency-hopping

Interfaces

Fixed reader/programmer board set: serial interface

2100 UAP:

10BaseT

10Base2

(Optional) 900 MHz, 2.45 GHz Open Air™, IEEE 802.11 Direct Sequence, or IEEE 802.11 Frequency Hopping RFLAN

SOFTWARE FEATURES

Protocols

Fixed reader/programmer board set: Intermec ASD interface specification

Intermec 2100 UAP with fixed reader/programmer module: available software fully supports the ANS NCITS 256-1999 for item management

Data Rate

Read 8 bytes of data from a tag in less than 12 ms

Write a single byte of data to a tag in less than 25 ms

Multitag Access

User-specified groups within a population of tags can be selected, read from, and/or written to using multitag access commands.

POWER REQUIREMENTS

Fixed Reader/Programmer Board Set Only

8 VDC

2100 UAP

100-240 VAC auto-ranging

ENVIRONMENTAL

Operating Temperature

0°C to +50°C (+32°F to +122°F)

Storage Temperature

-20°C to +70°C (+4°F to +158°F)

OPTIONS

General-Purpose Input/Output Circuits (reader/programmer)

Interfaces for input and output circuits to monitor sensors and control other devices

READ/WRITE PERFORMANCE

Read/write performance varies with RFID inserts, tags, and antenna configurations.

Sample dual antenna configuration is illustrated below.

Read/Write Ranges

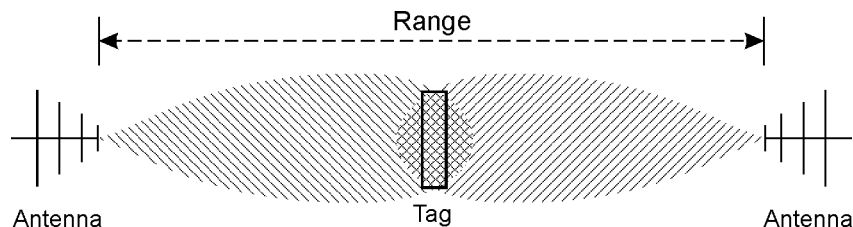
Write ranges are approximately 70% of the effective read ranges of the RFID inserts.

Read Range Examples

Ranges are listed below for RFID inserts using frequency-hopping FCC unlicensed operation reader and dual antennas.

1.8 Meters (5.9 ft): 2.45 GHz 6 x 30 x .5 mm (.24 x 1.18 x .02 in) RFID insert

2.5 Meters (8.2 ft): 2.45 GHz 10 x 60 x .5 mm (.39 x 2.36 x .02 in) RFID insert



A Portal with Dual Antennas

AA-0001

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Information
Gets Down To
Business™**

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