Sargas

2-PORT UHF RAIN RFID READER

The Sargas is a very small, high performance, multiprotocol, networked 2-port UHF RAIN RFID reader. Multipurpose client and host USB Ports, an SD card slot, an HDMI video output port, and high voltage, opto-isolated general purpose I/O ports allow Sargas to support a wide variety of applications in both indoor and sheltered outdoor environments. Outfitted with a powerful ARM Cortex processor running Linux and generous amounts of DDR and FLASH memory, complex on-reader programs can be written with the aid of our MercuryAPI. An optional pre-packaged on-reader program, RAINstream, enables Sargas to stream custom formatted tag data to multiple hosts over common communications channels.

Tag/Transponder Protocols

RFID Protocol Support	EPC Gen 2V2 ISO 18000-63 ISO 18000-6B (optional) IP-X (optional) AEI ATA (optional)

UHF RFID Antenna Interface

External Interface	Two RP-SMA connectors
RF Output Power	0 dBm to 30 dBm (1 W)[2]
RF Output Power Accuracy	+/- 0.5 dBm
Frequency Range Per Region	FCC 902-928 MHz (Americas) ETSI 865.6-867.6 MHz (EU) MCIT 865-867 MHz (India)

Data/Control/Wireless Interfaces

Connectors	RJ45 (10/100 Base-T Ethernet) USB Type B (console, memory stick, and RNDIS port) USB Type A (accessory port) 8-Pin Terminal Block (GPIO interface) 5 mm x 2.1 mm coaxial jack (DC input) Micro SD Card Interface Micro HDMI Video Port
GPIO	2 opto-isolated inputs, 2 opto-isolated outputs, +5V source, ground reference
Indicators/Switches	Dual boot/reading status LEDs; Power indicator; Four processor status indicators

MercuryOS Features

Networking	Cisco-certified DHCP and DNS-based configuration and firmware management, TCP/IP networking stack.
Security	SSL/SSH-based security
Web-based Control	Configuration, monitoring, and reading from a web browser via HTTP (HTTPS future)

Application Interface

Direct Communication	EPCglobal Low Level Reader Protocol (LLRP) v 1.1 with multiprotocol and advanced feature extensions
On-Reader API	C API
Host API	Java, C or .NET API
Streaming Interface	USB Keyboard emulator with optional streaming to USB COM port, Network Telnet or Network HTTP Post

Power

External DC Power	5 VDC +/- 0.25 V Maximum DC power: 15 W
Optional AC Adapter	90-264 VDC, 0.6 A RMS max, 47-63 Hz

Physical

Dimensions (without connectors)	87 mm L x 80 mm W x 23.80 mm H (3.4 in L x 3.1 in W x 0.9 in H)
Weight	0.4 lbs. (0.17 kg)

Environment

Operating Temp.	-40 C to +60 C
Storage Temp.	-40 C to +85 C
Humidity	5% to 95%, non-condensing

Regulatory and Safety

Regulatory	FCC 47 CFR Ch. 1 Part 15; Industrie Canada RSS-21 0 ETSI EN 302 208 v3.1.1 (RED 2014/53/EU)
Other	ROHS Compliant IEC 60950-1(ed.2) CA-10430-UL

Architecture

Processor	1 GHz TI ARM Cortex A8 (AM335x)
Operating System	Debian Linux kernel version 3.8
DDRAM Memory	512 MB
Flash Memory	4 GB
Real-Time Clock	Backup time: 1 week at room temperature

Performance

Max Tag Read Rate	More than 750 tags per second[2]
Max Read Distance	Over 30 feet (9 m) with 9dBIC or 6dBiL antenna

Ordering Information

Astra-EX Reader with POE North America Europe India	S6-NA S6-EU S6-IN
AC Indoor Power Adapter	PWRADP-S6-MR (multi-region)
Sargas Development Kit (Does not include reader)	S6-DEV-KIT
RAINstream On-reader Streaming App.	RAINSTM-LIC

[1]Maximum power may have to be reduced to meet regulatory limits, which specify the combined effect of the module, antenna, cable, and enclosure shielding of the integrated product.

[2]Measured in controlled test, field results may vary

Specifications subject to change without notice.

MAKING RFID EASY TO USE

ThingMagic is dedicated to driving the barriers to deploying RFID technology as low as possible. We design our products to be easy to use out-of-the box and to deliver predictable, reliable, and repeatable performance. Our development tools require little RFID expertise, enabling you to rapidly design, test, and deploy your RFID solutions.

CONSULTING DISTRIBUTOR

POHL Electronic GmbH
Eduard-Maurer-Straße 11a • 16761 Hennigsdorf
Tel. +49 3302 81893-0 • Fax +49 3302 81893-99
www.pohl-electronic.de • info@pohl-electronic.de

Developers Kit

Everything needed to read and write RFID tags and begin developing RFID-enabled applications:

- Cables
- Antenna
- Sample Tags
- Multi-region power adapter

Mercury API

A common development platform, supporting an extensive variety of hardware to connect, configure, and control ThingMagic readers.

Universal Reader Assistant

A utility for advanced demo, testing, and tuning of all ThingMagic readers. Reduces complexity for novice users while permitting low-level control for advanced developers.

ISO 9001 : 2008 REGISTERED FIRM
ISO 13485 : 2003 REGISTERED FIRM
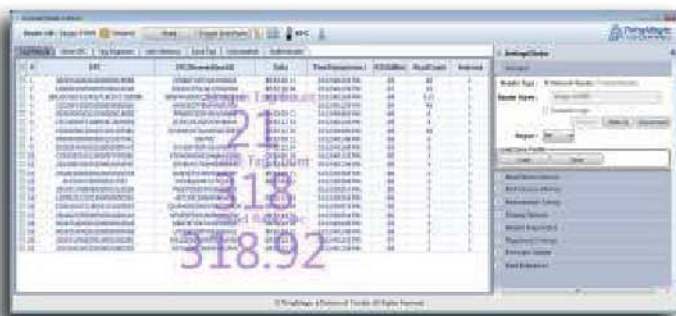
USA Office
7279 William Barry Blvd.
North Syracuse, NY
13212-3349

+1 315.701.0678 Phone
+1 315.701.0679 Fax
email: info@jadaktech.com

European Office
Emmastraat 16
4811 AG Breda
The Netherlands

+31 (0)76.522.5588 Phone
+31 (0)76.522.4747 Fax
email: info@jadak.eu

Asia Pacific Office
Building 8
Gangtian Industrial Square
GangTian Road
Suzhou Industrial Park
JiangSu, China 215024

+86 512.6283.7080 Phone
email: info@jadaktech.com

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