

# 2-PORT UHF RFID READER

The ThingMagic® Sargas reader is a highperformance, 2-antenna-port, UHF reader in a low profile enclosure. Built around the ThingMagic Micro reader module, the device reads more than 750 tags per second at distances over 9 meters (30 feet) when configured with appropriate antennas. With an onboard processor, memory and removable flash storage, the reader has features designed for enterprise

### **EASY SYSTEMS INTEGRATION**

ThingMagic Sargas reader makes system integration easier in 3 ways:

- Hardware features
- Sargas reader architecture
- Supporting software tools & API

Careful use of these capabilities can reduce hardware count and software development time in a project.

### Hardware Features

The reader has extensive hardware input/ouput features. In addition to Ethernet, 2 USB (one host,one client), and 4 opto-isolated General Purpose Input/Output (GPIO) ports the Sargas reader has a unique HDMI port. Integrating a display into an RFID

system often involves adding a separate PC to take advantage of standard peripherals or adding a custom display. With an HDMI port built into the reader, a standard display or monitor can be directly attached reducing hardware count and development time.

### Sargas Reader Architecture

The Sargas reader architecture is based on a 1 GHz ARM Cortex A8 processor running Linux kernel version 3.8. This is supported by 512 MBytes of DDR memory and 4 GBytes of FLASH memory. Onboard applications are supported via the Mercury OS C API.

MercuryOS additions include web-based configuration & monitoring using HTTP/HTTPS and SSL/SSH-based security. Reader networking features include a TCP/IP stack plus Cisco-certified DHCP & DNS-based configuration and firmware management

#### **Development Tools**

The Sargas reader is based on the powerful ThingMagic Micro module, and supports the Mercury API. This API is common across all ThingMagic reader modules and finished readers. Code that is developed for one system may be reused in other designs and projects.



# **Key Features**

- Reads up to 750 tag per second
- World-wide frequency coverage
- Networking, GPIO, USB, micro SD ports
- Unique on-board HDMI interface
- Mercury API, Universal Reader Assistant software support
- Independent read and write RF controls













# Sargas 2-PORT, UHF RFID READER



Windo EPC Tag Inspector	User Memory Lock Tag Unknown	Fir Authenticate					
EPC	EPC(ReverseBase36)	Data	TimeStamp(msec)	RSSI(dEm)	ReadCount	Antenna	Connect
392835408202028000018086	QFERSYDITH/83VN051	80 12 05 11	035240354 PM	-33	62	- 1	Reader Type: # Netroot Reader © Serul Rooter
E280681000000000000A32C6E	EGELGC/PG16LVHAVNS6	80121048	93:52:40:139 PM	-37	33	1	The state of the s
B020C4D192C403714EDC310000	WOSHHWEDOQSHIVSWESSERJO	/30 \$20 0 £31 1 f	1 605240365 PM	-24	113	1	Reader Name : \$44544-57795 -
E2C06F9200000000000000000	04NOSGTPBWE4NIFLXSE		03/52/40/129 PM	-34	46	-1	□ Transport (op)
302835408202029000016085	PESSEFYDITHISIVNOGE	pt28511	09:52:40:082 PM	-46		- 1	
C5C3484657158934C28ARW1	ZCE9CXR26F2D5F8MK5	DD F2 12 34	00:5240.116 PM	-49		. 1	Note Web Ut   Discorne
\$2000098120A01510140P982	2CLMWD3TGAINDGC38456	ED 82 12 34	09:52:39:900 PM	-49	10	- 1	Region : NA
000000000000000123457941	501782	BD 82 00 11	035240149 PM	-56	- 6	- 1	Control Speciments
10283540820202800000FA7C	KYY68FYDDH4EJVN051	-00121214	03/52/40.168 PM	-43	- 6	- 1	Load/Save Profile
CE92052015190000F7F7005E	YTWHINEHZUHAASIDGE T	200 12 0 10 TI	03:52:40:112 PM	-50	3	- 1	Load Save
201306318543030003030456				-60	4	- 1	1, 100
2004042687850000010103C8	GWEIZTSTARDNAGGENY	80 52 65 11	00:5239:383 PM	-60 -63	- 2	- 1	Read Write Cotons
4C353037303030313333	NVCEG4UN7L57QLNB	80F20433	05:12:19:399 PM		2	- 1	
200501078899020001A30105	PRIENDZESPYVSMIEŻY	×	00:52:39:851 PM	-50	- 2	1	Performance Metrics
(20092012021300000000202	AZZCOTL9103/598G498	00721794	03:52:19:163 PM	-10	2	- 1	Performance Tuning
E20010187219025312109D92 2014022W7000300102013A	CHAHORSSWAVORGGERSS		00:52:39:973 PM 00:52:39:954 PM	-62	2	- 1	ACCOUNT OF THE PARTY OF THE PAR
200402258700000000102013A 91389540830000000000004F	MICOSPACHIMATING DELC	Ratter Sec	035239394 PM	-52			Display Options
9078354D82020200000100AE	UYY68EDTHIBSWOOD	80 52 0441	-035240049 PM	-52			Reader Diagnostics
20150004883901000001486	M62270W RRG (AVRIVE	00 H2 12 HB	03/5240.140 PM	-58 -57	3		> Regulatory Testing
201400008725010000088050	GETTLINKTHWISTERIN	00/91734	#5240.158 PM	-36			27 Aeguviory Felling
20140909125030002090050	GALVERN SAME AND SAME	WHILE SE	802540T28 NW	-20	-	-	Firmware Update
							* Data Extensions





Physical & Environmental		
Dimensions	87 mm L x 80 mm W x 23.8 mm H	
	0.27 Kg (0.6 lbs)	
Operating temperature	-20 to +60°C (-4 to +140°F)	
Storage temperature	-40 to +85°C (-40 to +185°F)	

RF Inter	face		
Antenna Ports	2 ports with RP-SMA connectors		
RF Power output	0 dBm to 30 dBm (1 W), ±1.0 dBm		
RF Power control	Command-adjustable with separate read and write levels		
Default RF Power Output	+30 dBm ±1.0 dBm		
Frequency	Pre-configured for these regions: ► FCC/IC 902-928 MHz, 917.4-927 MHz, 917.5-922.5 MHz (Americas)		
	► ETSI 865.6-867.6 MHz,869.85 MHz (EU)		
	► TRAI 865-867 MHz (India)		
	► KCC 917-920.8 MHz (Korea)		
	► ACMA 920-926 MHz		
	► SRRC-MII 920-925 MHz (P.R. China)		
	► MIC 916.7-920.9 MHZ (Japan)		
	► Open (Customizable) 865-869 MHZ, 902-928 MHz		

RFID Parameters				
Protocols	EPC Gen 2V2 ISO 18000-63			
	ISO 18000-6B, IPx, AEI ATA *			
	EPC Global LLRP V1.1			
Tag read rate	> 750 tags per sec. (settings dependent)			
Tag read distance	> 9 m (30 ft) with appropriate antenna			
	* These protocols require additional licenses			

Miscellaneous				
Power	4.5 to 5.5 V dc, 15 W max			
Regulatory	FCC/IC, CE Mark			
Safety	IEC 60950-1 (ed. 2), US-17650-UL			

### **AMERICAS**

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