# **Sargas**

### 2-PORT UHF RFID READER

The ThingMagic® Sargas reader is a high-performance, 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

### **FASY 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.



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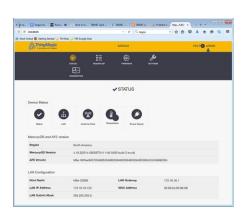
### **Key Features**

- 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

QR code

	✓ Settings/Status					e Authenticate	er Memory Lock Tag Untraceable	Write EPC Tag Inspector Us
	<ul> <li>Connect</li> </ul>	Antenna	ReadCount	RSSI(dBm)	TimeStamp(msec)	Data	EPC(ReverseBase36)	EPC
ork Reader O Serial Reader	Reader Type: @ Network Re.	1	62	-33	03:52:40:154 PM	80 62 05 11	QF888FYDITHIBJVN0G1	28354D8202028000015086
		1	33	-37	03:52:40.139 PM	80 E2 10 68	EGELGCFPG16LVHAVNS6	068100000003900A32C6E
pas-97f9f5 -	Reader Name: Sargas-97f	1	113	-24	1 00:52:40.165 PM	360 E2 (00 G3 L1)	WORNHARZING BATANASOM	C4D192C403714EDC3100000
	☐ Transport Lo	1	46	-34	03:52:40.129 PM		04NOSGTF8WM4NIFLXS6	DSF920000000000000000
		1	8	-46	09:52:40:082 PM	E2 05 11	PF888FYDETHU83VNOGT	835408202028000015085
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		1	10	-49	03:52:39.900 PM	00 E2 12 34	2CLMWD3TGAWDGC5E456	00098120A01510140P982
•	Region : NA	1	6	-56	03:52:40.149 PM	BD E2 00 11	9(FFT82	000000000000123457941
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Save		1	3	-50	03:52:40.152 PM	00 E2-93 10	Y7WHNVBHZUHWAASX066;	2032015130000F7F7005E
2416	LOAD SAIN	1	4	-60	09:52:39.724 PM	ag₀£.Ω⊌n	2FOBNYC7XAHSZEEBNYT	308318543030001010F5E
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	P Read/Write Options	1	2	-63	03:52:39.399 PM	80 E2 04 11	NVC8G4UN7L57QUM1	C353037303030313333
	Performance Metrics	1	2	-50	03:52:39.851 PM		PNJEYDZBSPYVSM6KNY	500078896020001A10105
		1	2	-45	03:52:39:563 PM	00 f 2 12 34	AITCDTL90001598G456	0920120213000000000202
	<ul> <li>Performance Tuning</li> </ul>	1	2	-50	03:52:39:973 PM	0092,1234	QUAHORSSWAYORGGD456	010187219025312109D32
	Display Options	1	2	-62	03:52:39:954 PM	- 00 12 12 14	GPNPSPOHIMAINMOENY I I	40225870000000102013A
		1	2	-52	03:52:40:049 PM	Katternec	M6078FYEXTHURSYMBOS C	8354D82020280000000AE
	Reader Diagnostics	1	3	-58	03:52:40.146 PM	80 E2 04-11	UYY68EXDITH/83WNGG1	8354D820202900000FA86
	Regulatory Testing	1	1	.57	095240122 PM	00 E2 12 34	ME227CM IRRGUMERNY	50105883901000105028E
		1	1	-56	#55240.158 PM	00 52 12 34	G47XL0W2HWSFIR1FNY	410108725030002080050
	Firmware Update							
	2 Data Fatansinns							





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 Interface				
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)			
	<ul> <li>Open (Customizable) 865-869 MHZ, 902-928 MHz</li> </ul>			

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				

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