

ThingMagic® IZAR



194 mm L x 139 mm W x 33.6 mm H

Features & Benefits:

- Built Around Proven ThingMagic Technology
- User-friendly web interface included in software
- Broadest Range of Operating Temperatures for Both indoor and Sheltered Outdoor Environments
- ThingMagic Universal Reader Assistant and Mercury API Shortens Testing and Development Process
- Optional RAINstream to Allow Direct Transfer of Tag Data to Backend Systems Via Several Alternative Interface Protocols Eliminates Software Design

Applications:

- Cabinets and Lockers
- Portals
- In-Vehicle
- Warehouse & Supply Chain
- Inventory Monitoring
- Access Control

ThingMagic IZAR is a compact, programmable, 4-port RAIN UHF RFID network-attached reader with both read and write capability

State-of-the-art performance of over 750 tag reads per second allows ThingMagic IZAR to be used in a wide variety of applications. Output power levels of up to +31.5 dBm and high receiver sensitivity permit longer read distances.

Powerful Processor

ThingMagic IZAR is embedded with a powerful ARM Cortex processor running the Linux Operating System (OS), and generous amounts of DDR and FLASH memory, allowing complex on-reader programs to be written with the aid of JADAK's custom Mercury API. For those who simply need a data stream over network or serial interfaces, JADAK offers the proprietary RAINstream® application.

RAINstream Compatible

All settings, including those for RAINstream, can be configured via a web interface sourced by the reader. This interface also permits the administrator to view status, upgrade firmware, run diagnostic tests, and test reading ability.

“Tagnostic”

ThingMagic IZAR supports the entire suite of RAIN UHF RFID tag functionality, including Gen2V2 security. It also supports custom features from a wide variety of tag vendors, enhancing functionality for specialized applications. Optional, non-RAIN tag protocols are also available, including ISO 18000-6B, and read-only support for IP-X and AEI ATA.

Common Language

Mercury API, ThingMagic's universal programming interface, permits easy software portability across the entire ThingMagic product line – between finished readers and embedded modules.

Multiple Data Interfaces

Control and data gathering connections to ThingMagic IZAR can be made over both LAN and client USB interfaces. Other interfaces can also be supported by adapters connected to the USB host interface, including WiFi, Bluetooth, and serial connections.



Bottom view



Top view



ThingMagic IZAR

Physical					
Dimensions (no connectors)	194 mm / 7.6 in. (L) x 139 mm / 5.5 in. (W) x 33.6 mm / 1.3 in. (H)				
Weight	0.7 kg / 1.51 lbs.				
Tag / Transponder Protocols					
RFID Protocol Support	EPCglobal Gen 2V2 (ISO 18000-63); ISO 18000-6B (optional) IP-X (optional, read-only); AEI ATA (optional, read-only)				
RF Interface					
Antenna Connectors	Four RP-TNC connectors				
RF Power Output	Read and write levels adjustable from 0 to +31.5 dBm				
Frequency Range Per Region	FCC 902-928 MHz (Americas), ETSI 865-868 MHz (EU), MCITT 865-867 MHz (India), MIC 916.8-920.8 MHz (Japan), SRRC-MII 920-925 MHz (P.R. China) <i>Customizable channel list permits subsets of these regions.</i>				
Data/Control Interface					
Control/Data Interfaces	RJ45 (10/100 Base-T Ethernet), USB Type B (client console, memory stick, and RNDIS port), USB Type A (accessory port), Micro SD and Micro HDMI future use				
GPIO Sensors and Indicators	12-Pin, two-row Terminal Block provides: 4 opto-isolated Inputs, 4 opto-isolated Outputs, 5V Source, Isolated and chassis grounds, DC input to set output levels				
User Indicators	1 bi-color status LED, 4 antenna LEDs, 2 LAN LEDs, clip-hole reset switch				
Power					
Power Source	DC 9-30V (AC Adapter Available), POE, POE+				
Power Consumption	13W typical max., 17W worst case				
Regulatory Certifications & Environment					
Certifications	USA (FCC 47 Part 15); Canada (RSS-210); EU (ETSI EN 302 208 v3.1.1, RED 2014/53/EU), India (MCITT), Japan (MIC), China (SRRC). FCC Class B for incidental emissions (EMI) <i>Other regional certifications may be available through reseller partners.</i>				
Safety & Other	ROHS compliant, IEC 60950-1 (ed. 2), CA-10430-UL				
Temperature	Operating -40°C to +60°C; Storage -40°C to +85°C				
Humidity	5%-95% non-condensing				
Performance					
Max Read Rate	>750 tags/second				
Max Tag Read Distance	>9 m (30 ft) with 9dBiC or 6dBiL antenna				
Application Interface					
Direct Communication	Low Level Reader Protocol (LLRP) v1.1 with multiprotocol and advanced extensions				
Host API	Mercury API: Java, C, C#/ .NET				
On-Reader API	Range of languages compiled with C/Java API				
Communication Channels	USB Keyboard emulator, USB COM port, Network Telnet, Network HTTP Port				
Mercury OS Features					
Networking	DHCP and DNS-based configuration and firmware management, TCP/IP networking stack, Optional Wi-Fi support through external 3 rd party USB adapter				
Security	SSL/SSH-based security				
Web-based Control	Configuration, monitoring, and reading from web browser via HTTP (HTTPS future)				
Architecture					
O/S	Debian Linux kernel version 3.8				
Real-Time Clock	Backup time: 1 week at room temperatures				
Processor	1 GHz TI ARM Cortex-A8 (AM335x)	RAM	512 MB	Flash Memory	4 GB
Ordering Information					
IZAR Reader with POE	PLT-RFID-IZ6-NA; PLT-RFID-IZ6-EU; PLT-RFID-IZ6-IN, PLT-RFID-IZ6-JPH, PLT-RFID-IZ6-CN				
Power Adapter	PLT-RFID-PWRADP-IZ6-NA; PLT-RFID-PWRADP-IZ6-EU				
Development Kit	PLT-RFID-IZ6-DEVKIT (<i>does not include reader or power adapter</i>)				
RAINstream License	TM-RAINSTM-LIC				
Protocol Licenses	(AEI ATA) IZ6-LIC-AEIATA, (IPX/ISO 18K-6B) IZ6-LIC-2F				

ABOUT JADAK:

JADAK, a business unit of Novanta, is a market leader in machine vision, RFID, barcode, printing, and color and light measurement products and services for original equipment manufacturers. The company designs and manufactures embedded detection and analysis solutions that help customers solve unique inspection, tracking, scanning and documenting challenges. The company is ISO 9001 and ISO 13485 registered.

Novanta is a trusted technology partner to OEMs in the medical and advanced industrial technology markets, with deep proprietary expertise in photonics, vision and precision motion technologies.

ThingMagic is JADAK's RFID line of products.

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