



## Features & Benefits:

- Built around proven ThingMagic technology
- Plug-and-play UHF RFID reader with SAM 4S architecture, 1 GB processor, 256K of flash memory, and integrated antenna with read range up to 2 meters
- Standard USB interface with keyboard emulation and bi-directional COM interface capability
- IP54 rated enclosure made of healthcare plastics
- Support for EPCglobal Gen 2V2 Protocol (ISO 18000-63)
- Pre-loaded Autonomous Workflows simplify integration, and enable software-free operation
- RAIN Communication Interface supports RAIN RFID technology standards

## Plug-and-Play RAIN® UHF RFID Finished Reader

ThingMagic Elara enables easy addition of RFID into applications that require a plug-and-play desktop or fixed mount reader. Based on the industry-proven ThingMagic Nano module, the Elara adds interface and operability features that allow engineers to minimize design efforts and quickly implement RFID in any application that requires mid- or short-range read distance. The Elara supports autonomous workflows permitting rapid creation of solutions without RFID expertise nor the use of SDKs and integration tools, and it's among the first products in the market to support a new developer-friendly interface between applications and RAIN RFID readers, the RAIN Communication Interface.

## Highlights:

- Speed and ease of integration due to plug-and-play solution that includes reader module, antenna, and processor to RFID-enable applications.
- Among the first products in the market to support a new developer friendly interface between applications and RAIN RFID readers – RAIN Communication Interface (RCI)
- Comes pre-loaded with a selection of Autonomous Workflows for the most common use cases. Allows users to operate without RFID expertise, SDKs and integration tools.
- The simplicity of the keyboard emulation mode allows data transfer across multiple platforms, without the need for custom application interface.
- IP54 rated enclosure provides protection against dust and water. Guarantees that reader can be disinfected and used in a healthcare setting without risk of corrosion of internal components.
- Design is highly configurable and can be customized for unique applications. *Contact JADAK to discuss how Elara can be tailored to fit your specific application.*

Ideally suited scenarios include:

- Bulk-reading a small set of items, like instruments in a surgical kit.
- Reading a specific item but looking for longer range than HF RFID can provide.
- Final item verification for inventory or returns processing.

## Application Areas:

- Medical Equipment for Healthcare and Pharmaceutical Industries
- Access gates in parking garages, ski lift gates, and events
- Tag commissioning stations

# ThingMagic Elara

<b>Physical</b>	
<b>Dimensions</b>	61 mm (W) x 133 mm (L) x 20 mm (H)
<b>Enclosure</b>	IP54 Rated healthcare plastics
<b>Mounting Holes</b>	4 screw inserts: accepting M3 x 0.5 mm threaded screws, 5 mm depth
<b>Tag / Transponder Protocols</b>	
<b>RFID Protocol Support</b>	EPCglobal Gen 2V2 (ISO 18000-63)
<b>RF Interface</b>	
<b>Antenna</b>	Internal, EU or NA frequency range, RHCP, 3 dBi nominal gain
<b>RF Power Output</b>	Read and write levels adjustable from 0 to +27 dBm in 0.01 dB steps
<b>Region Selections for High Band Freq. Range (915-928 MHz)</b>	FCC (NA, SA), Argentina, Australia, Bangladesh, China, Indonesia, Japan, Korea, Macao, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Thailand
<b>Region Selections for Low Band Freq. Range (865-868 MHz)</b>	ETSI (EU), Hong Kong, India, Russia, Vietnam
<b>Data/Control Interface</b>	
<b>Control/Data Interfaces</b>	USB standard or RS-232 available on request
<b>GPIO Sensors and Indicators</b>	None on USB configuration; Other configurations include four 3.3V bi-directional ports config. as input (sensor) or output (indicator)
<b>User Indicators</b>	2 bi-color LEDs and audio signal
<b>Power</b>	
<b>Power Consumption (Full RF Output Power)</b>	USB Powered: 5VDC +/- 10% at 3.5 W; External Power: 4.5-10 VDC at 4.9 W; 10-26 VDC at 4.4 W
<b>Power Consumption (Not Transmitting)</b>	USB Powered: 5VDC +/- 10% at 1.0 W; External Power: 4.5-10 VDC at 2.4 W; 10-26 VDC at 1.9 W
<b>Idle Power Saving Options</b>	Min. 0.2 W in sleep mode
<b>Regulatory Certifications &amp; Environment</b>	
<b>Certification</b>	USA (FCC 47 Part 15); Canada (RSS-210); EU (ETSI EN 302 208 v3.1.1, RED 2014/53/EU), FCC Class A for incidental emissions (EMI)
<b>Temperature</b>	Operating 0°C to +50°C; Storage -40°C to +70°C
<b>Shock</b>	8 shocks of 1000g (3 positive direction x 3 negative direction x 3 axes). 1 m drop, 1000 G's, ½ sine wave profile (on carrier)
<b>Vibration</b>	Sinusoidal vibration 1.0" peak to peak displacement 5-13 Hz; 10g acceleration 13-500 Hz, 1.0g from 500-2000 Hz; 30 min linear freq. sweep on 3 axes.
<b>Performance</b>	
<b>Max Read Rate</b>	Up to 200 tags/second
<b>Max Tag Read Distance</b>	Up to 2 m (6 ft) reliant on power availability and tag size
<b>Ordering Information</b>	
<b>PLT-RFID-EL6-UHB-4-USB</b>	Elara Reader USB, High Band (915-928MHz)
<b>PLT-RFID-EL6-ULB-4-USB</b>	Elara Reader USB, Low Band (865-868MHz)

This is a preliminary document and product specifications are subject to change without notice

## 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. 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 the JADAK line of RFID products. [www.jadaktech.com](http://www.jadaktech.com)

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