

ThingMagic Elara



133 mm L x 61 mm W x 20 mm H

Features & Benefits:

- Built around proven ThingMagic technology
- Plug-and-play UHF RFID reader with ARM based Cortex-M4 architecture and integrated antenna with read range up to 2 meters
- Standard USB interface with keyboard emulation and bi-directional COM interface capability
- Enclosure made of healthcare plastics
- Pre-loaded Autonomous Workflows simplify integration, and enable software-free operation
- RAIN Communication Interface supports RAIN RFID technology standards
- Support for EPCglobal Gen 2V2 Protocol (ISO 18000-63)

Plug-and-Play RAIN® 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.
- 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
- Updating tag information with item usage information
- RFID tag commissioning

Application Areas:

- Medical Equipment for Healthcare and Pharmaceutical Industries
- Kit assembly and returns processing stations
- Tag commissioning stations
- Hospitality and event registration



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Physical	
Dimensions	61 mm (W) x 133 mm (L) x 20 mm (H)
Mounting Holes	4 screw inserts: accepting M3 x 0.5 mm threaded screws, 3.5 mm depth
Tag / Transponder Protocols	
RFID Protocol Support	EPCglobal Gen 2V2 (ISO 18000-63)
RF Interface	
Antenna	Internal, optimized for EU or NA frequency range, RHCP, 3 dBi nominal gain
RF Power Output	Read and write levels adjustable from 0 to +27 dBm in 0.01 dB steps
Region Selections for High Band Freq. Range (915-928 MHz)	FCC (NA, SA), Argentina, Australia, Bangladesh, China, Indonesia, Japan, Korea, Macao, Malaysia, New Zealand, Philippines, Singapore, Taiwan, Thailand
Region Selections for Low Band Freq. Range (865-868 MHz)	ETSI (EU), Hong Kong, India, Russia, Vietnam
Data/Control Interface	
Control/Data Interfaces	USB standard, or RS-232 available on request
GPIO Sensors and Indicators	None on USB configuration; Other configurations include four 3.3V bi-directional ports config. as input (sensor) or output (indicator)
User Indicators	2 bi-color LEDs and adjustable audio signal
Power	
Power Consumption (Full RF Output Power)	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
Power Consumption (Not Transmitting)	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
Regulatory Certifications & Environment	
Certification	M6E-NANO modular certifications where applicable and 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)
Safety	IEC/UL 60950-1, IEC/EN 60601-1-2 4th edition compatible for ESD
Environmental	RoHS, REACH
Temperature	Operating 0°C to +50°C; Storage -40°C to +70°C
Vibration	Sinusoidal vibration 1.0" peak to peak displacement 5-14 Hz; 10g acceleration 14-500 Hz, 1.0g from 500-2000 Hz; 30 min linear freq. sweep on 3 axes.
Performance	
Max Read Rate	Up to 65 tags/second
Max Tag Read Distance	Up to 2 m (6 ft) reliant on power availability and tag size
Ordering Information	
PLT-RFID-EL6-UHB-4-USB	Elara Reader USB, High Band (915-928MHz)
PLT-RFID-EL6-ULB-4-USB	Elara Reader USB, Low Band (865-868MHz)

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 business designs and manufactures embedded detection and analysis solutions that help customers solve unique inspection, tracking, scanning and documenting challenges. JADAK is based in Syracuse, New York, with sales and technical locations across the globe.

ThingMagic is JADAK's RFID line of products.

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.

1 (888) 238-1155 Inside USA • 1 (205) 383-2244 Outside USA
info@atlasRFIDstore.com • www.atlasRFIDstore.com

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