

# Astra

## Enterprise UHF RFID Reader



Astra is an easy to install, unobtrusive, integrated reader/antenna designed for office and commercial environments. Driven by ThingMagic’s powerful Mercury5e UHF RFID reader module, Astra’s Power over Ethernet (PoE) and WiFi options allow for flexible, low cost, single cable installations. With full support for ThingMagic’s enterprise-class MercuryOS software, Astra blends in well with corporate IT infrastructures and office lay outs.

Ordering Information	
Astra Reader with AC power & Wi-Fi - (North America)	A5-NA-WIFI
Astra Reader POE - (North America)	A5-NA-POE
Astra Reader with AC power & Wi-Fi - (Europe)	A5-EU-WIFI
Astra Reader POE - (Europe)	A5-EU-POE

Tag / Transponder Protocols	
RFID Air-Interface Protocol	EPCglobal Gen2 (ISO 18000-6C) with Anti-Collision, DRM, and advanced anti-jamming
RF Interface	
Antenna(s)	Integrated 6dbi, monostatic, circularly polarized antenna, plus 1 RP TNC connector to support optional external antenna
RF Power Output	Separate read and write levels, configurable from 5 dBm to 30 dBm (1 W), +/- 1.0 dBm accuracy*
Frequency	Hop table with up to 62 entries, configurable in 50KHz steps, accommodating the following ranges: FCC 902-928 MHz ETSI 865.6-867.6 MHz MIC 910-914 MHz
Data/Control Interface	
Connectors	10/100 Base-T Ethernet interface, Serial RS232 port; 12-pin screw terminal connector
Wireless	802.11 b/g (optional) WEP 40-bit and 104-bit keys; WPA & WPA2 with TKIP and AES algorithms with preshared keys or EAP-TLS
Indicators and GPIOs	1 LED indicator; Opto-isolated GPIOs: 4 Inputs & 4 Outputs
Physical	
Dimensions	26 cm L x 26 cm W x 7.6 cm H (10.2 in L x 10.2 in W x 3.0 in H)

Power	
Power Over Ethernet	Power over Ethernet 802.3af in both modes A and B (Supports 100m cable)
External DC Power (optional)	10- 30 VDC supply voltage. Maximum DC power: 15 W
Environment	
Operating Temp	-20C to +60C
Storage Temp	-40C to +85C
Humidity	Relative humidity 0-90% non-condensing
Architecture	
Processor	Intel IXP420 Network Processor
DRAM Memeory	64MB
Flash Memory	32MB
Tag Buffer	65,000 tags
Performance	
Max Tag Read Rate	Over 190 tags/second
Max Tag Read Distance	Over 30 feet (9 m) with integrated 6 dBIL antenna (36 dBm EIRP)
Max Receive Sensitivity	-65 dBm at full transmit power with typical antenna**
MercuryOS features	
Networking	Cisco-certified DHCP & DNS-based configuration and firmware management, TCP/IP networking stack
Security	SSL/SSH-based security
Web based applications	Configuration and Monitoring from a web browser; HTTP/HTTPS
Protocol	Reader Query Language (RQL) and MercuryOS C API
Communication	Supports thread safe local applications, and remote applications on Windows and Linux (x86 and ARM).
Regulatory & Safety	
Regulatory	FCC 47 CFR Ch. 1 Part 15; Industrie Canada RSS-210 ETSI EN 302 208 V1.1.1 and V1.2.1 (Planned); ETSI EN 300 220 V2.1.1 (Planned)
Other	ROHS Compliant, UL Listed



\*Maximum power may have to be reduced to meet regulatory limits, which specify the combined effect of the module, antenna, cable, and enclosure shielding of the integrated product.

\*\*Receive sensitivity will improve as transmit power is reduced.  
Specifications subject to change without notice.



## Develop

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Create RFID-enabled solutions using industry-standard tools

## Deploy

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Enable rapid deployment and reliable operation of RFID solutions within a wide variety of new and existing environments

## Optimize

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Maximize productivity, improve ROI, and lower operating costs



For more information, visit [www.thingmagic.com](http://www.thingmagic.com)

To purchase ThingMagic products, please email [salesteam@thingmagic.com](mailto:salesteam@thingmagic.com) or call 1-866-833-4069 (International callers dial +1 617-499-4090)

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