

Astra-EX

2-Port Integrated UHF RFID Reader



Astra-EX is an easy to install, unobtrusive, integrated 2-port reader/antenna designed for office and commercial environments. Driven by ThingMagics powerful Mercury6e (M6e) UHF RFID Module, Astra-EX's Power-over-Ethernet (PoE) and Wi-Fi options allow for flexible, low cost, single cable installations. Astra-EX blends in well with corporate IT infrastructures and office layouts, and offers full support for ThingMagic's enterprise-class MercuryAPI software

Ordering Information

| | |
|---|---------------|
| Astra-EX Reader with AC power & Wi-Fi - (North America) | A6-EX-NA-WIFI |
| Astra-EX Reader POE - (North America) | A6-EX-NA-POE |
| Astra-EX Reader with AC power & Wi-Fi - (Europe) | A6-EX-EU-WIFI |
| Astra-EX Reader POE - (Europe) | A6-EX-EU-POE |

Tag / Transponder Protocols

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|-----------------------|---|
| RFID Protocol Support | EPCglobal Gen2 (ISO 18000-6C) with DRM ISO 18000-6B (optional) |
|-----------------------|---|

UHF RFID Antenna Interface

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|--------------------|---|
| Antenna | One integrated 8.5 dBiC antenna, 865 to 960 MHz |
| Ext. Interface | One RP-TNC connector |
| RF Power Output | Separate read and write levels, adjustable from 5 dBm to 31.5 dBm* (1.4W) on external port, up to 30.0 dBm (1.0 W) into integrated antenna with +/-0.5 dBm accuracy above +15 dBm |
| Regulatory Regions | FCC 902-928 MHz (Americas) ETSI 865.6-867.6 MHz (EU) KCC 917-920.8 MHz (Korea) TRAI 865-867 MHz (India) ACMA 920-926 MHz (Australia) |

Data/Control/Wireless Interfaces

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|---------------------------------|---|
| Connectors | RJ45 (10/100 Base-T Ethernet) USB Type B (console port) USB Type A (accessory port) HDI5 (GPIO interface) 2.5 mm screw-lock barrel (DC power) Female SMA (optional WiFi antenna) |
| Wireless | Internal 802.11 b/g (optional) WEP 40-bit and 104-bit keys; WPA & WPA2 with TKIP and AES algorithms with pre-shared keys or EAP-TLS |
| Expansion | USB type A interface permits support for USB client accessories |
| Indicators, switches, and GPIOs | 1 two-color LED status indicator with reset switch; Isolated GPIOs: 4 Inputs & 4 Outputs plus +5 VDC and ground references |

Physical

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|------------|--|
| Dimensions | 26.1 cm L x 26.1 cm W x 7.6 cm H (10.2 in L x 10.2 in W x 3.0 in H) |
| Weight | 4.5 lbs (2.0 kg) |

Regulatory & Safety

| | |
|------------|---|
| Regulatory | FCC 47 CFR Ch. 1 Part 15; Industrie Canada RSS-21 0 ETSI EN 302 208 |
| Other | ROHS Compliant IEC 60950-1(ed.2) US-17668-UL |

Power

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|---------------------|---|
| Power Over Ethernet | Power over Ethernet 802.3af in both modes A and B (Supports 100m cable) |
| External DC Power | 10- 30 VDC supply voltage. Maximum DC power: 15 W |

Environment

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|-----------------|--------------------------|
| Operating Temp. | -20C to +50C |
| Storage Temp. | -40C to +85C |
| Humidity | 5% to 95% non-condensing |

Architecture

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|--------------|---------------------------------|
| Processor | Intel IXP420 Network Processor |
| DRAM Memory | 64MB |
| Flash Memory | 32MB |
| Tag Buffer | Memory accommodates 65,000 tags |

Performance

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|-------------------|--|
| Max Read Rate | Over 400 tags/second |
| Max Read Distance | Over 30 feet (9 m) with Integrated antenna |
| Max EPC ID Length | Up to 496 bits |

MercuryOS Features

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|-----------------------|---|
| Networking | Cisco-certified DHCP & DNS-based configuration and firmware management, TCP/IP networking stack |
| Security | SSL/SSH-based security |
| Web-Based Control | Configuration and Monitoring from a web browser; HTTP/HTTPS |
| Protocol Interfaces | LLRP v1.0.1 with multiprotocol extensions |
| Programming Interface | Java, C, and C# (.NET) APIs on host C-API on reader |



*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. Specifications subject to change without notice.

MAKING RFID EASY TO USE

ThingMagic is dedicated to driving the barriers to deploying RFID technology as low as possible. We design our products to be easy to use out-of-the box and to deliver predictable, reliable, and repeatable performance. Our development tools require little RFID expertise, enabling you to rapidly design, test, and deploy your RFID solutions.

Developers Kit

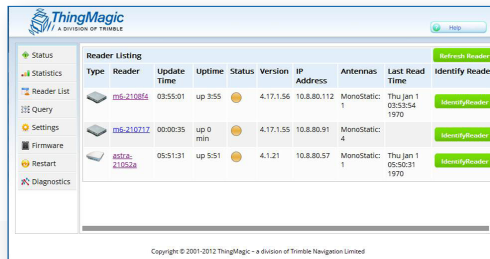
Everything needed to read and write RFID tags and begin developing RFID-enabled applications:

- Test chassis
- Cables
- Antenna
- Sample Tags
- Full schematics to help you design your own complementary components



Mercury API

A common development platform, supporting an extensive variety of hardware to connect, configure, and control ThingMagic readers.



Universal Reader Assistant

A utility for advanced demo, testing, and tuning of all ThingMagic readers. Reduces complexity for novice users while permitting low-level control for advanced developers.

