

## Apollo ASP-2

### High-Speed, 2-Reader Network Controller

### (2 Reader Ports, 8 Supervised Inputs, 4 Outputs)

The high-performance ASP-2 is an open-hardware architecture, clustering network controller that fully supports up to two doors. The ASP-2 fully leverages the embedded Linux™ OS to offer groundbreaking features like 3<sup>rd</sup> party application support. Communication is encrypted end-to-end (from host down to reader), firmware is encrypted, and user certificates are supported.

## Notable Features

- ▮ **FULLY CONFIGURABLE HARDWARE INTERFACES**
  - > Onboard interfaces support 2 doors using TTL or RS485 (OSDP) readers, or up to 4 doors using RS485 readers with expanded licenses
- ▮ **HOST-TO-READER ENCRYPTION**
  - > All communications between any two points in the Apollo hardware topology can be encrypted, whether network or serial
- ▮ **RAPID DOWNLOAD SPEEDS**
  - > Performance of up to 10K cards per second
- ▮ **EMBEDDED LINUX™ OS**
- ▮ **BIOMETRIC TEMPLATES STORED ONBOARD**
- ▮ **READER PORTS SUPPORT BOTH WIEGAND/CLOCK&DATA AND OSDP READERS**

## Competitive Edge

- ▮ **NETWORK CLUSTERING**
  - > Unparalleled system redundancy by clustering up to 32 controllers together
- ▮ **OEM / 3<sup>rd</sup>-PARTY DEVELOPED & INSTALLED APPS**
  - > Applications can be easily developed & installed without involving the manufacturer to run in an onboard, containerized environment
- ▮ **ASYNCHRONOUS COMMUNICATIONS**
  - > Events are sent to the host in real time, without polling
- ▮ **SCRIPTING**
  - > Without modifying firmware, user-created scripts can be run locally to modify logic, create conditional actions, manage events, and manipulate interfaces
- ▮ **UPGRADABLE**
  - > Connect up to 16 OSDP readers with reader expansion licenses
  - > 1GHz CPU module with upgradable memory options
- ▮ **INDUSTRIAL OPERATING TEMPERATURE (-40°C to +85°C)**
- ▮ **PoE+ OPTION**
  - > PoE+ coupled with the auxiliary output power port enables fully securing a door without needing a DC power supply

## Security

- ▮ OpenSSL
- ▮ TLSv1.2 AES256-SHA256 with TLS Server/Peer certificate checking
- ▮ OSDP
- ▮ SSCPv2; Meets ANSSI encryption requirements
- ▮ Firmware upgrades are signed and encrypted
- ▮ FIPS 201-2
- ▮ CAC
- ▮ TWIC

## Access Control Features

- ▮ Anti-Passback
- ▮ Threat levels
- ▮ Use Limits
- ▮ N man rule
- ▮ Occupancy Management
- ▮ Visitors and Escorts
- ▮ Elevator Control (Up to 128 floors)
- ▮ Host-Controlled Access Request
- ▮ Duress Code
- ▮ Keypad with flexible pin lengths
- ▮ Supported reader types:
  - > OSDP
  - > Wiegand
  - > Clock & Data
  - > SSCPv2
  - > FIPS 201 PKI-based card and legacy types
  - > Biometric

# Apollo ASP-2



## POWER

- Input Power (VIN):
  - > 12-24VDC; 350mA typical MAX current
  - > PoE+
- Auxiliary Output Power: VIN passthrough; 1A MAX current
- Reader Port output power:
  - > VIN passthrough or 12VDC regulated
  - > 500mA MAX current each port or 600mA MAX current between both ports
- USB 5VDC; 500mA MAX current
- Onboard power supervision with backup power
  - > Memory and RTC maintained through power failure

## ONBOARD HARDWARE INTERFACES

- 2 Reader Ports supporting up to 2 TTL readers or up to 4 RS485 readers
  - > Open-collector Buzzer output
  - > Supports single-wire and two-wire reader LED control
- 8 Supervised/Unsupervised Inputs
  - > Configurable supervision values (12 pre-defined)
  - > High-speed input scanning with filtering/noise suppression to eliminate false alarms
  - > High-precision analog ICs for stability in noisy environments
- 4 Form-C Relay Outputs
  - > 2A @ 30VDC MAX rating
- 2 Unsupervised Inputs for Cabinet Tamper & Power Supply Fault
- 2 Network Ports
  - > 1 dedicated 10/100 Ethernet port
  - > 2<sup>nd</sup> Ethernet port possible with USB-to-Ethernet adapter
- 2 Downstream, RS485 Serial Com Ports
  - > Multidrop up to 32 IO and/or Reader Interfaces per port
  - > 9,600 to 115,200 baud
  - > 2-wire interface; half-duplex
  - > Each port can be configured for a different RS485 protocol
- Micro SD card
- Micro USB 2.0 with OTG support

## MEMORY CAPACITY

- Minimum Memory Specs: 512MB Flash & 256MB RAM
- Up to 250,000 cards
- Up to 128 readers with standard configuration
- 100K Event buffer
- 300 Access Levels per controller
- 50 Access Levels per cardholder
- 127 Magnetic stripe card formats
- 127 Wiegand card formats

## NETWORK AND HOST

- Locally hosted web server for configuration and event reporting
- Up to 5 concurrent host connections with authorized-host list
- IPv4 / IPv6
- SNMP

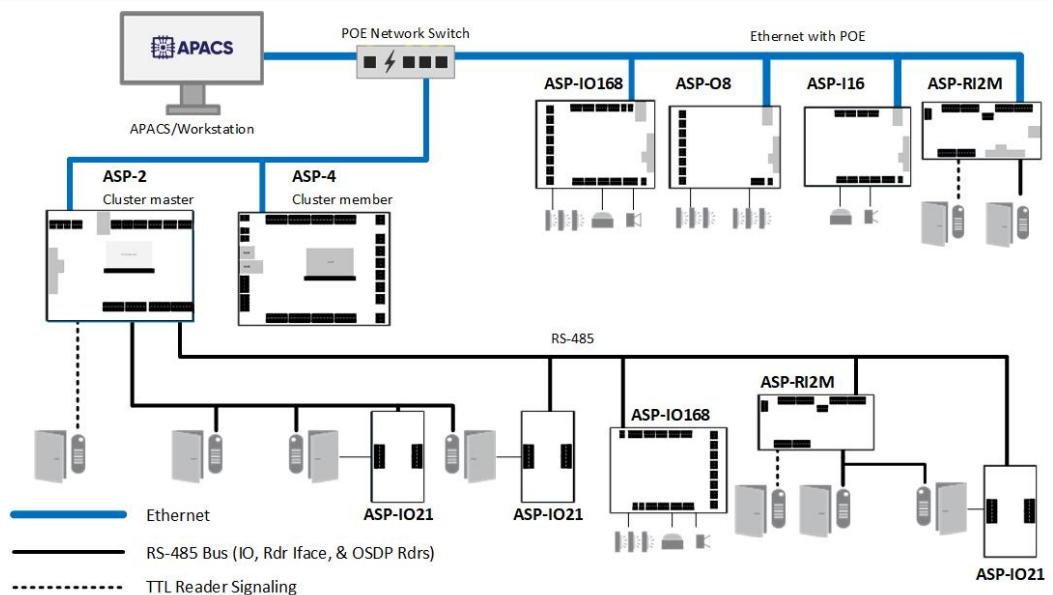
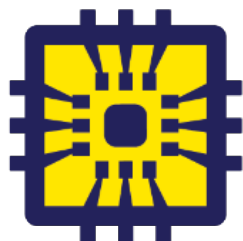
## REGULATORY COMPLIANCE

- UL 294, UL294B, UL1076, UL2610
- ULC / ORD C1076
- CE Compliant
- FCC Part 15 Class A
- RoHS / Pb (Lead) Free

## GENERAL INFORMATION

- INDUSTRIAL operation and storage temperature (-40°C to +85°C)
- 5% to 95% humidity
- Dimensions: 8in (203.2mm) x 5.5in (139.7mm) x 0.88in (22.35mm)
- Weight: 0.6 pounds (272 grams)
- SKU: **431600-431603** ASP-2 with PoE option  
**431604-431607** ASP-2 without PoE option

## SYSTEM DIAGRAM



For more information email: [Apollo@apollo-security.com](mailto:Apollo@apollo-security.com) | phone: +1 949 852 8178 | Apollo Security 3610 Birch Street, Newport Beach, CA 92660