



ASIC-8540-BAC Features

- 8 Universal Inputs
- 8 Relay Outputs, Form C
- 4 Analog Outputs, 0-10 Vdc
- Battery-backed hardware clock
- System bus for communication access
- Local bus for supervision of ASI terminal controllers, or Modbus Master RTU
- BACnet MSTP protocol interface
- Multiple BACnet object types supported: Analog Input, Binary Input, Analog Output, Binary Output, Analog Value, Binary Value
- Up to 256 instances BACnet Analog or Binary Value object type supported per device.
- Send & Receive ASI protocol over MSTP network using BACnet tunneling.

The ASIC/2-8540-BAC combines the potential of a fully configurable controller with the interoperability afforded by BACnet open protocol.

The ASIC/2-8540 is designed for energy management and control for a wide range of building systems including air handlers, chillers, cooling towers, pumps, lighting, etc. Applications range from control of small air handling units and roof top air conditioners in networked systems, to stand alone control of small buildings, such as branch banks, retail stores, and utility company sites. The ASIC/2-8540 configurable unitary controller has a switching power supply for AC operation, and flash and NVRAM memory for program and data storage.

The controller is easily configured using Windows™ based ASI Visual Expert configuration software that links ready-made objects for scheduling, PID control, alarm notification, optimum start, trending, run-time accumulation, event logging, electrical demand management, and more. The ASIC/2-8540 has an on-board battery-backed calendar clock and allows special events, holidays, and schedules to be defined in advance. Configuration data is stored in non-volatile memory that is retained through power loss. Comprehensive product documentation is available.

By setting a few parameters in the system object, the ASIC/2-8540-BAC controller communicates as a native BACnet device.

ASI Analog Inputs are scaled based on the Input Convert Type and Units field to deliver the BACnet Present Value and Units properties. Analog Inputs may be overridden by setting the OutOfService property and writing to the Present Value. ASI Normally Open, Normally Closed, and Multiplexed Inputs are reported as BACnet Binary Outputs.

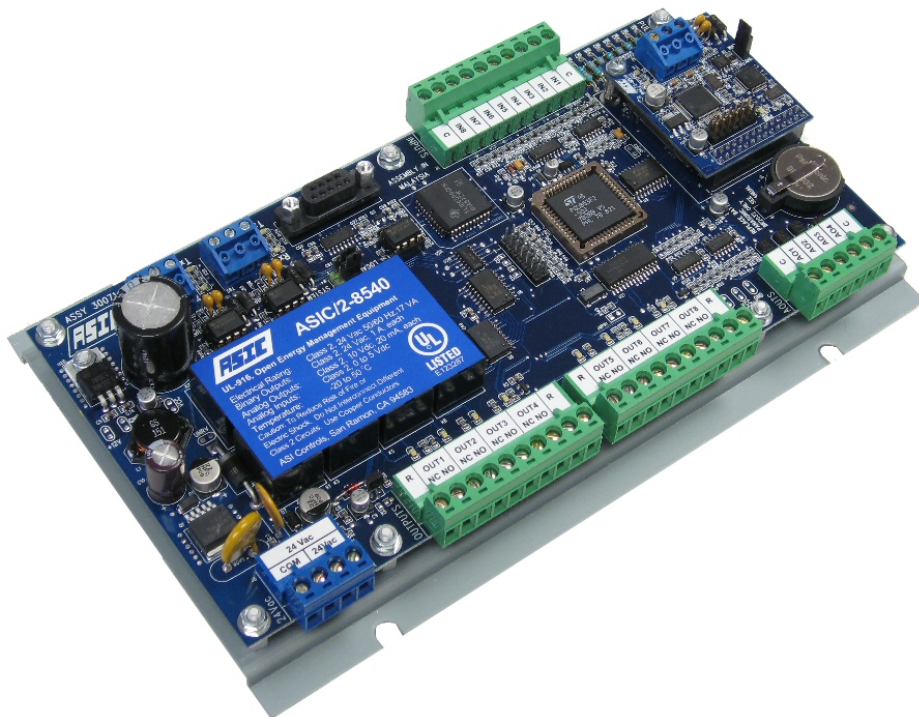
ASI Analog Outputs are scaled in percent of full scale, and may be overridden by writing to the BACnet Present Value.

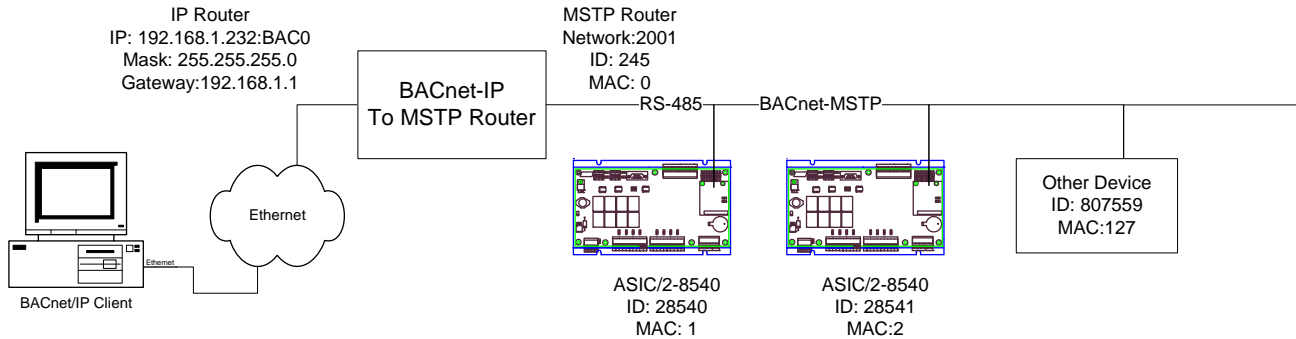
ASI Relay Outputs are reported as BACnet Binary outputs and may be overridden by writing to the BACnet Present Value.

Read/write BACnet Analog Values and Binary Values are based on the configuration of the ASI Monitor object handles. Up to 256 Analog or Binary Values may be configured in up to 8 instances of the ASI Monitor Object for monitoring and changing Setpoints, Status, and other parameters in the controller.

The ASIC/2-8540-BAC can communicate concurrently on the System and Local buses with ASI protocol.

The ASIC/2-8540-BAC on the BACnet network can be reached from ASI Visual Expert by selecting a BACnet connection. ASI Expert can request Who-Is service, and builds a list of recognized ASI/BACnet devices. Double clicking on the device brings seamless tunneling of ASI messages over BACnet.





Specifications

Control Power

Supply Voltage: 24 Vac +/- 15%, 50/60 Hz
 Power Consumption: 17 VA (plus loads)
 Protection: 1.35 A Polyswitch & MOV

Relay Outputs 8

Type: Dry Contacts Form "C"
 2 groups with common return
 Rating: 24 Vac or 24 Vdc, 1 A .

Analog Outputs 4

Type: 4 Analog 0-10Vdc
 Resolution: 0.4% full scale
 Current Rating: 20 mA at 9.4 V, 14 mA at 10Vdc
 Protection: TVS, 10 V, 600 W peak

Universal Inputs 8

Type: Universal Analog/Binary
 Range: 0 to 5 Vdc, 0.1% full scale

ASI Communications

Format: RS-485, RS-232
 Baud Rate: Up to 38,400 baud
 System Bus Protocol: ASI
 Local Bus Protocol: ASI or Modbus MasterRTU
 Maximum Length: 4000 ft (1.2 km) RS-485 with Repeater every 32 devices
 Switch selectable RS-232/RS-485 interface

BACnet MSTP Communications

Format: RS-485
 Baud Rate: 9600, 19,200, 38,400 or 76,800 baud
 Optional 120 ohm termination
 Protection: 100 mA Polyswitch fuse
 Maximum Length: 4000 ft (1.2 km) RS-485 with Repeater every 32 devices

UL-916 Listing

Rated as a Class 2 device, Pilot Duty

FCC/CE

ASIC/2-8540 Meets CE requirements.
 Complies with FCC Part 15 (CISPR 22) Class A
 BAC/2-MSTP – FCC/CE

Connections

Power, Input & Output: 2-part screw terminals
 RS-485: 2-part screw terminals, 3 Position,

Other

Memory: Firmware, 128 kbytes Flash
 Indication: Red LED, 1-Power,
 Amber LED, 8-Output
 Red LED 3-Receive, Green LED 3-Transmit

Overall Dimensions: 5.5" x 9.2" x 2.0" (WxLxH)
 140 mm x 234 mm x 51 mm
 with mounting holes on center
 6.20" x 5.20" (157 mm x 132 mm)
 Weight: 1.6 lb (0.7 kg)

Environmental

Operating: 0 to 50 °C (32 to +122 °F), 10 to 95% rh non-condensing
 Storage: -37 to 80 °C (-35 to +180 °F), 5 to 95% rh non-condensing

BACnet Interface

ASHRAE 135-2008 BACnet®
 ® BACnet is a Registered trade mark of ASHRAE, Inc.
 MSTP RS-485 at 9600, 19,200, 38,400 or 76,800 baud

BACnet Objects Supported

Analog Input, Analog Output, Analog Value,
 Binary Input, Binary Output, Binary Value, Device

BACnet Interoperability Building Blocks (BIBBS)

The BACport conforms to the BACnet Application Specific Controller (B-ASC) device profile. :

Data Sharing:

DS-RP-B (ReadProperty)
 DS-RPM-B (ReadPropertyMultiple)
 DS-WP-B (WriteProperty)

Device and Network Management:

D-DDB-B (Dynamic Dynamic Binding)
 D-DOB-B (Dynamic Object Binding)
 D-DCC-B (Device Communication Control)
 D-RD-B (Reinitialize Device)
 D-TS-B (Time Synchronization)

How to Order:	Order Number
ASIC/2-8540 with BACnet	ASIC/2-8540-BAC

Accessories:	Order Number
Four Input Multiplex Kit	QUADMUX