

# HARMONY Gateway Advanced I/O

WIRELESS  
ETHERNET GATEWAY + I/O



The **GATEWAY ADVANCED I/O** provides remote monitoring and control functions and is perfectly suited to:

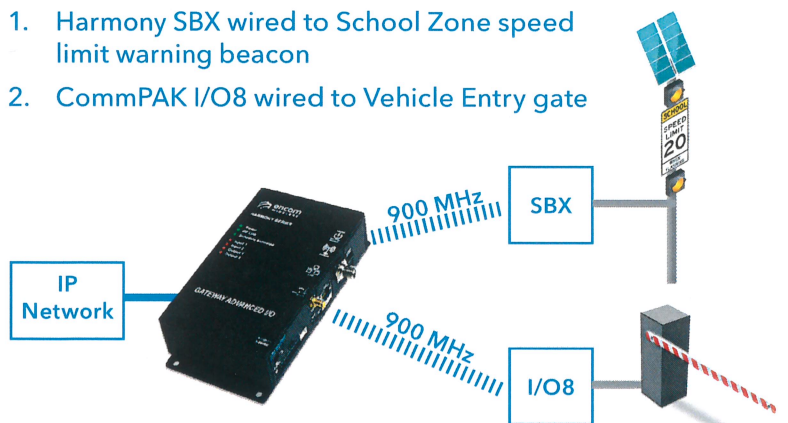
- ✓ act as a master gateway between a user's network and a larger network of 2 or more remote devices
- ✓ provide both gateway and I/O capabilities to a single site, consolidating cost and equipment
- ✓ intelligently monitor both analog and digital inputs and trigger different kinds of outputs

Each unit is equipped with a built-in LAN port for easy connection to a cell modem or IP network and a 900 Mhz FHSS radio to communicate with remotes (SBX, IO8) via RF. The ability to connect to remotes via RF aids in cost efficiency by allowing end users to cut down on the number of cell plans needed in a particular deployment.

## Example Application

Gateway Advanced I/O connected to IP network communicating over 900 MHz frequency with:

1. Harmony SBX wired to School Zone speed limit warning beacon
2. CommPAK I/O8 wired to Vehicle Entry gate



*Configuring, Controlling  
and Monitoring your Encom  
equipment is EASY with  
**ControlPAK and Stratos I/O!***



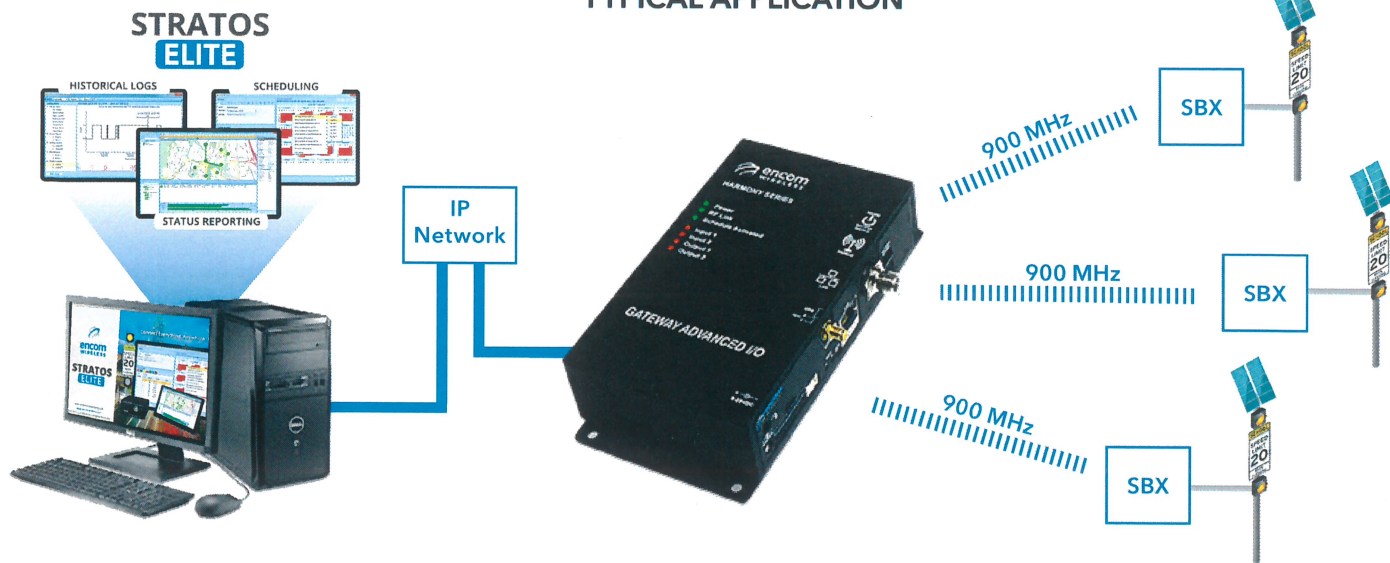
[www.encomwireless.com](http://www.encomwireless.com)

## KEY FEATURES

- Offers single cellular connection for an entire system
- Internal device memory holds up to 16 schedules / 16 events per schedule / 365-day calendar scheduling capacity
- Remote schedule changes/overrides
- Integrated real-time clock with maintenance-free super cap backup and automatic DST / leap year adjustment
- SNMP enabled for interoperability with other central software systems
- Additional functions become available when used with Stratos Elite such as...
  - ✓ Status detection of various functions
  - ✓ Real time updates and alerts
  - ✓ Centralized monitoring, control & more

 **encom**  
WIRELESS

## TYPICAL APPLICATION



### GENERAL SPECIFICATIONS

|                        |   |
|------------------------|---|
| Input Power:           | 6-30 VDC or 100-240 VAC   |
| Power Consumption:     | 165 mA @ 12 VDC   |
| LED indicators:        | PWR, RF Link, Schedule Status, Input 1 to 2, Output 1 to 2, LAN-ACT, LAN LINK |
| Operating Temperature: | -40°F to 176°F (-40°C to 80°C), up to 95% humidity                            |
| Enclosure:             | Aluminum, Black Powder Coat<br>3.75" W x 1.75" H x 7.5" D                     |

### 900 MHz RADIO SPECIFICATIONS

|                       |   |
|-----------------------|---|
| Technology:           | Frequency-hopping spread spectrum (FHSS) with repeater capability |
| Frequency Range:      | 902-928 MHz, ISM Band   |
| Output Power:         | 1 mW, 10 mW, 100 mW, 1000 mW                                      |
| Receiver Sensitivity: | -110 dBm @ 10-6BER  |
| Error Checking:       | 32-bit CRC  |
| Encryption:           | 32-bit  |
| Antenna Port:         | RP TNC-F  |
| Certification:        | FCC, Industry Canada  |

### CONNECTIVITY

|                                     |  |
|-------------------------------------|--|
| Ethernet Port (10/100Base-T)        | 1  |
| 900 MHz Radio                       | Yes (Optional in NR model)                 |
| GPS                                 | Yes  |
| Configuration, Monitoring & Control | Stratos Elite and ControlPAK, SNMP, WEBUI  |
| Protocol                            | HTTP, SNMP V1, V2 & V3, SMTP, FTP and DHCP |

### ORDERING OPTIONS

- **Gateway Adv IO:** Ethernet I/O Gateway Controller w/ 900 MHz FHSS radio
- **Gateway Adv IO NR:** Ethernet I/O Gateway Controller (no radio)
- **BH-3200A:** Harmony CPC Cable Harness (DC only - Standard pinout)
- **BH-3200C:** Harmony CPC Cable Harness (DC only - TXDOT specs)

### INDUSTRIAL I/O

|                      |  |
|----------------------|--|
| Digital Inputs       | 2  |
| Digital Input Range  | 0 to 30 V (ground activated)                                   |
| Digital Outputs      | 2  |
| Digital Output Range | Open collector (3 to 30 VDC, max. 500 mA) or SPDT 15 amp relay |
| Analog Input         | 2, 0 to 50 VDC, 12-bit resolution                              |
| Analog Output        | 2, 0 to 5 VDC, 12-bit resolution                               |
| I/O Connectors       | Flying leads   |

### REMOTE SITE MONITORING FUNCTIONS

|                           |                                     |
|---------------------------|-------------------------------------|
| Input voltage and current | monitoring + logging                |
| Beacon lamp On/Off status | monitoring + logging                |
| Beacon lamp On current    | monitoring + logging                |
| Solar panel voltage       | monitoring + logging                |
| Battery current           | charge/discharge monitoring+logging |
| Temperature               | monitoring + logging                |
| Receive signal strength   | monitoring + logging                |
| GPS location              | monitoring                          |
| Beacon lamp fail          | detect + alarm                      |
| Low battery voltage       | detect + alarm                      |
| Solar panel disconnect    | detect + alarm                      |
| Battery disconnect        | detect + alarm                      |
| A/C power loss            | detect + alarm                      |
| Integrated battery backup | Yes                                 |
| Number of calendars       | 16                                  |
| Calendar periods          | 365 days                            |
| Event/calendar            | 16                                  |
| Manual override           | Yes                                 |



For Sales and Support:

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\*ENCOM Broadband radios require professional installation.

Specifications subject to change without notice. Visit [www.encomwireless.com](http://www.encomwireless.com) for updates.

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