

GATEWAY ADVANCED I/O

10/100 LAN Port | Integrated I/O | 900 MHz Wireless

HARMONY from ENCOM Wireless *Connect Everything. Anywhere. Every time.*

The Harmony Gateway Advanced radio is a cost-effective, easy-to-integrate means of adding smart wireless connectivity to your system. By collecting performance data and managing remote sites without site visits, Harmony optimizes operations through improved system performance and reduced maintenance costs. Harmony Series wireless devices combined with STRATOS ELITE Central Software enable agencies to 'connect everything' through a private Wide Area Network or the 4G LTE Cellular system. This system is not simply a wireless connection, it is an end-to-end wireless monitoring and control solution designed for both small- and large-scale deployments.

With Harmony you can:

- Easily obtain real time status updates from your remote sites and log data for future analysis to improve operations (power status, solar performance, battery charge, beacon flash status, and sensor data).
- Create and download schedules or manually control devices from anywhere you have an Internet connection.
- Receive customizable alerts and alarms directly to your inbox, enabling you to react to issues anywhere – every time.
- Leverage existing network infrastructure to connect your sites without on-going costs or use 4G LTE Cellular to connect anywhere your cellular phone works.

Harmony can connect with a wide variety of remote devices and is perfectly suited to these common applications:

- **School Zone Flashing Beacons** – track power status (AC or Solar), create/edit schedules, override individual or groups of beacons, confirm beacon flash status, log historical data
- **Solar Powered Sites** – monitor solar charge output, battery charge, load levels.
- **Intelligent Traffic Cabinets**- monitor doors, remote power cycling, environmental conditions (temp, humidity etc)
- **Collecting SCADA information** - water / wastewater, oil and gas, electrical utilities, agriculture

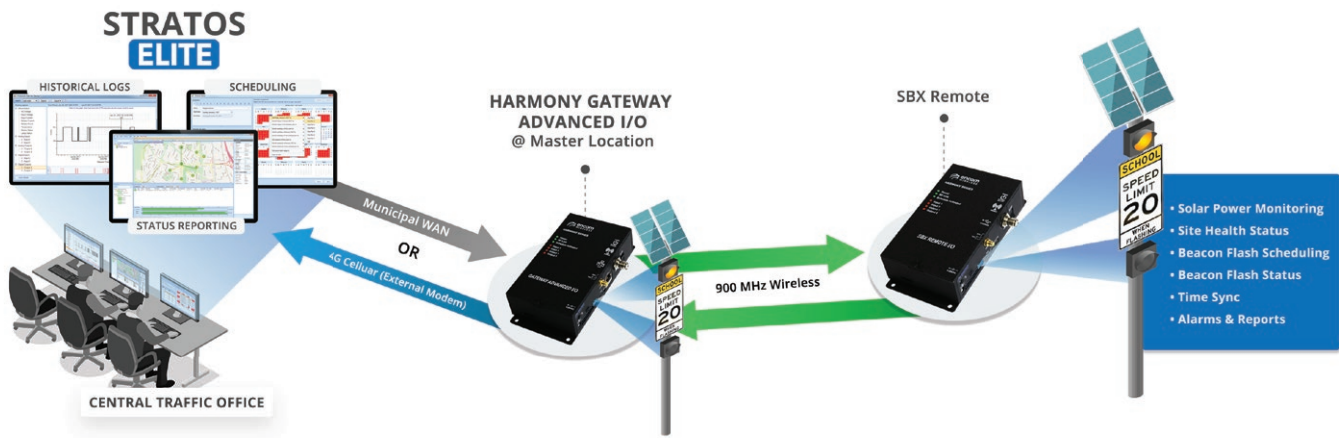


Harmony Gateway Advanced I/O Device Overview:

Harmony Gateway Advanced is the connection point or 'ON Ramp' between your municipal Wide Area Network (WAN) or external cellular modem and the Harmony SBX Remote radio to provide central monitoring and control to AC and Solar powered school zone beacons. STRATOS ELITE Central Software communicates through the Gateway to the Harmony SBX Remote I/O and creates an end-to-end monitoring and control solution. Install the Harmony Gateway Advanced at a connected school zone beacon site and enable communications to surrounding beacons.

The Harmony Gateway Advanced can be connected anywhere on your network and features a powerful and field proven 900MHz FHSS radio that creates a wireless network with up to 254 Harmony SBX Remote radios installed inside School Zone Beacons at ranges up to 20 Miles.

Bring Harmony to your network with ENCOM Wireless and call today for a free consultation.



| GENERAL SPECIFICATIONS: | |
|--------------------------------------|---|
| Input Power: | 6-30 VDC or 100V-240VAC |
| Power Consumptions @ 12 VDC: | 150M mA |
| LED Indicators: | PWR, RF Link, Schedule, Input 1 & 2 and Output 1 & 2 |
| Operating Temperature: | -40 to 176F (-40 to 80C), up to 95% humidity |
| Enclosure: | Aluminum, Black Powder Coat (3.75"W x 1.75"H x 7.5"D) |
| Lamp Fail detection: | Yes- Direct Current Monitoring |
| Loss of A/C detection and reporting: | Yes – battery backup enables alarm reporting |
| Input voltage & current monitoring: | Yes |
| Solar Panel Voltage Monitoring: | Yes |
| Battery Charging Current monitoring: | Yes |
| Lamp ON Current Monitoring: | Yes- Output 1 & 2 |
| Integrated Battery Back-up: | Yes |
| Calendar: | 365 days |
| Scheduling: | Yes |
| Manual Overrides | 2 Local / 2 Remote |
| RADIO SPECIFICATIONS: | |
| Technology: | (FHSS) with repeater capability |
| Frequency Range: | 902-928 MHz, ISM Band |
| Output Power: | 1mW, 10mW, 100mW, 1000mW |
| Receiver Sensitivity: | -110dBm @ 10-6 BER |
| Encryption: | 32-bit |
| Certification: | FCC, Industry Canada |
| Antenna Port: | RP TNC-F |
| CONNECTIVITY: | |
| LAN Port | 0/100 TCP/IP |
| 900 MHz Radio: | Yes |
| GPS | Yes- Optional |
| Configuration, Monitoring & Control: | Stratos Elite, ControlPAK |
| I/O: | |
| Digital Input: | 2 - 0 to 48V |
| Digital Output: | 2 (SPDT 3 Amp) |
| Analog Input: | 2- 0 to 50 VDC, 12 Bit Resolution |
| Analog Output: | 2- 0 to 5 VDC, 12 Bit Resolution |

Site Monitoring Functions

- LED beacon on/off status – confirmed with current monitoring.
- Beacon lamps fail alarms
- Low battery voltage detection and alarms
- Solar panel voltage data logging
- Solar power charge output data logging
- Power fail reporting – integrated battery backup inside Harmony Device
- General purpose I/O enabling other applications.

Control Functions:

- Centralized schedule management for school zone beacons - make schedule changes or manually turn on/off individual or groups of beacons from anywhere with STRATOS Elite.
- Accurate time synchronization at all sites - never set a time clock in the field again.
- Remote power cycle function – reset power on field devices from anywhere.
- Two hardwired inputs for push buttons / detection switch connections.
- Two 0 to 5 V analog outputs for external device control.

Harmony Gateway Advanced I/O Connectivity Features:

- Ethernet port for Municipal WAN connection or external cellular modem.
- Simply connect Harmony Gateway Advanced directly to solar power system and flashing beacon relays for instant wireless monitoring and control.
- Integrated 900 MHz 1W radio to communicate with Harmony SBX Remote I/O radio up to 20 miles away
- Optional GPS available for location tracking.

CANADIAN OFFICE

Toll Free: (800) 617-3487
 Phone: +1 (403) 230-1122
 #7 640 42nd Ave NE Calgary
 Alberta T2E 7J9
 Canada

USA OFFICE:

Toll Free: (800) 617-3487
 Phone: +1 (972) 885-5170
 3750 Arapaho Rd, Addison
 Texas 75001
 USA

Email: sales@encomwireless.com