Overview

The EC-BOS-2AX is a compact, embedded controller/server platform. It combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and web serving capabilities in a small, compact platform. The EC-BOS-2AX makes it possible to control and manage external devices over the Internet and present real time information to users in web-based graphical views.

The EC-BOS-2AX is part of the EC-NetAX suite of Java-based controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. EC-NetAX products are powered by the NiagaraAX Framework®, the industry’s first software technology designed to integrate diverse networks and devices into a seamless system. Furthermore, EC-NetAX supports a wide range of protocols including LONWORKS®, BACnet® and Internet standards. In all, EC-NetAX includes integrated network management tools to support the design, configuration, installation, and maintenance of interoperable networks.

Applications

- Ideal for smaller facilities, remote sites, and for distributing control and monitoring throughout large facilities.
- Supports a wide range of field buses for connection to remote I/O and stand-alone controllers.
- Serves data and rich graphical displays to a standard web browser via an Ethernet LAN or remotely over the Internet, or dial-up modem. In larger facilities, multi-building applications and large-scale control system integrations, the EC-NetAX Supervisor software can be used to aggregate information (real-time data, history, alarms, etc.) from large numbers of EC-BOSAX controllers into a single unified application.
- Using EC-NetAX Supervisor, you can manage global control functions, support data passing over multiple networks, connect to enterprise level software applications, and host multiple, simultaneous client workstations connected over the local network, the Internet, or dial-up modem.

Features & Benefits

- Supports open and legacy protocols.
- Web User interface (optional) serves rich graphical presentations for easier and more user-friendly management of control system integrations.
- Integral energy management routines.
- Run stand-alone control, energy management and integration applications.
- Supports two optional communications boards.
- Small compact design is easy to install and supports multiple power options.
- Optional I/O Modules.
- Includes oBIX client/server and Niagara Network (Fox) client/server drivers.
- BTL listed when BACnet driver is used. Complies with B-BC (BACnet Building Controller).
Distech Controls Programmable Controllers

Table: Available Options

<table>
<thead>
<tr>
<th>EC-BOS models</th>
<th>EC-BOS-220</th>
<th>EC-BOS-230</th>
<th>EC-BOS-240</th>
<th>EC-BOS-250</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC-BOS-220</td>
<td>16MB Java heap memory</td>
<td>16MB Java heap memory</td>
<td>16MB Java heap memory</td>
<td>48MB Java heap memory</td>
</tr>
<tr>
<td></td>
<td>350K resource limit</td>
<td>450K resource limit</td>
<td>No license restrictions</td>
<td>No license restrictions</td>
</tr>
<tr>
<td></td>
<td>8 points max/network</td>
<td>200 points max/network</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>34 points max. NDOI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two networks (one of which is Niagara®)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table: EC-NetAX I/O modules

<table>
<thead>
<tr>
<th>EC-NetAX I/O modules</th>
<th>EC-NetAX IO-16</th>
<th>EC-NetAX IO-34</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO-16</td>
<td>16 point I/O module</td>
<td>34 point I/O module</td>
</tr>
<tr>
<td></td>
<td>8 universal inputs</td>
<td>16 universal inputs</td>
</tr>
<tr>
<td></td>
<td>4 form A relay outputs</td>
<td>10 form A relay outputs</td>
</tr>
<tr>
<td></td>
<td>4 analog outputs (0-10VDC)</td>
<td>8 analog outputs (0-10VDC)</td>
</tr>
<tr>
<td></td>
<td>Up to four (4) IO-16 can be connected to the EC-BOS-2AX</td>
<td>Maximum one (1) IO-34 can be connected to the EC-BOS-2AX</td>
</tr>
</tbody>
</table>

Distech Controls Programmable Controllers

- **ECP-300**
  - 10 universal inputs
  - 8 universal inputs
  - 14 wireless inputs

- **ECP-400 Series**
  - 12 universal inputs
  - 12 universal outputs
  - Option to have some triac outputs
  - 14 wireless inputs
  - Option to have HOA switches
  - Built-in 15V DC Power Supply

- **ECP-500 Series**
  - 16 universal inputs
  - 12 universal outputs
  - 14 wireless inputs
  - Option to have HOA switches
  - Built-in 15V DC Power Supply

Hardware options & accessories

- EC-NPB-LON 78Kbps FTT-10A LON® adapter (uses one of the two communication slots in the EC-BOS-2AX)
- EC-GPRS-CBL-EXT 2 meter (~6 ft.) antenna cable and bracket for modem
- EC-NPB-GPRS Plug-in GPRS modem card
- RS 485 Card Plug-in RS-485 card (2 ports)
- RS 232 Card Plug-in RS-232 card
- EC-WPM-EU 90-240VAC, 50/60Hz wall adapter European/Asian plug type (not required with purchase of IO-34)
- EC-WPM-UK 90-240VAC, 50/60Hz wall adapter U.K. plug type (not required with purchase of IO-34)
- PMD2VA 85-264VAC/15VDC, 47/63Hz DIN rail mountable Power Supply Module

For more information on these or other Distech Controls products, please refer to our web site at www.distech-controls.eu or contact sales@distech-controls.eu.

1. All EC-BOS-2AX models include a web user interface, embedded workbench, and all of the open drivers.
2. For more information and details, please refer to the EC-NetAX I/O Modules datasheet.
3. Available when the Wireless Receiver module is connected to the controller.

Product Warranty & Total Quality Commitment

All Distech Controls product lines are built to meet rigorous quality standards and carry a two-year warranty. Distech Controls is an ISO 9001 registered company. Distech Controls’ products provide both the contractor and the end user with the flexibility of using “best-of-breed” products in system design.
### Product Specifications

<table>
<thead>
<tr>
<th>Platform</th>
<th>Chassis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor:</td>
<td>Construction:</td>
</tr>
<tr>
<td>IBM PowerPC 405EP 250MHz processor</td>
<td>Plastic, DIN rail or screw mount chassis, plastic cover</td>
</tr>
<tr>
<td>Memory:</td>
<td>Cooling:</td>
</tr>
<tr>
<td>128MB SDRAM and 64MB Serial Flash</td>
<td>Internal air convection</td>
</tr>
<tr>
<td>Battery Backup:</td>
<td>Dimensions:</td>
</tr>
<tr>
<td>5 minutes typical; shutdown begins within 10 secs</td>
<td>16.0cm (6.3&quot;) W x 12.2cm (4.8&quot;) H (including connectors) x 6.2cm (2.4&quot;) D</td>
</tr>
<tr>
<td>Real-Time Clock:</td>
<td>Weight:</td>
</tr>
<tr>
<td>3 month battery backup</td>
<td>0.708 kg (1 lb 9 oz)</td>
</tr>
</tbody>
</table>

#### Communications

Methods:
- 2 Ethernet Ports – 10/100Mbps (RJ-45 connectors)
- 1 RS-232 Port (9-pin D-shell connector)
- 1 RS-485 non-isolated port (3 screw connector on base board)
- 1 20-Pin Euro-DIN Connector (for I/O and Power modules)
- 2 communication card option slots

#### Environment

Methods:
- Operating Temp.: 0°C to 50°C (32°F to 122°F)
- Storage Temp.: 0°C to 70°C (32°F to 158°F)
- Relative Humidity: 5% to 95%, non-condensing

#### Agency Listings

UL: UL916
CE: C-UL listed to Canadian Standards Association (CSA) C22.2 No. 205-M1983 “Signal Equipment”
FCC: Part 15 Class A

#### Operating Systems

Types:
- QNX RTOS
- IBM J9 JVM Java Virtual Machine
- Niagara\textsuperscript{AX} Framework

For more detailed specifications, please refer to the EC-BOS-2\textsuperscript{AX} Mounting and Wiring Instructions.

### Typical Architecture

![Typical Architecture Diagram](image)

Specifications subject to change without notice.

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4. For more detailed specifications, please refer to the EC-BOS-2\textsuperscript{AX} Mounting and Wiring Instructions.