

## AMX MU-2300

MUSE Automation Controller - 4 Serial, 4 Relays, 4 IR, 4 IO & ICSLan

AMX-CCC023



**AMX MU-2300 MUSE Automation Controller**

### Overview

The AMX MU-2300 MUSE Automation Controller is a powerful, secure, and reliable device that provides a dedicated computing resource running HARMAN Professional's AMX MUSE automation platform. The MU-2300 can simultaneously process a virtually unlimited number of scripts written in JavaScript, Python, or Groovy and natively supports Low-Code development with Node-RED.

AMX MUSE Automation Controllers feature a modern embedded processor that's 10x faster than the processor in AMX NX Controllers, bountiful memory, and rugged, industrial grade eMMC storage. Built on HARMAN's secure Linux platform, MUSE controllers are designed to surpass the requirements of the most secure installations. Additionally, these Controllers natively support HARMAN's HControl (open-API), HiQnet (legacy HARMAN audio devices) and ICSP (legacy AMX control devices) protocols making them the ideal automation processor for any space, environment, or application - old and new.

The MU-2300 is a 1 RU device and includes 4 serial ports, 4 relays, 4 IR ports, and 4 I/O ports. An ICSLan network port provides an isolated network for controlled devices.

### Features

- **Modern Embedded Processor** – Power to run a nearly unlimited number of scripts simultaneously
- **Robust eMMC storage** – Industrial grade storage provides reliability in high-access 24/7 installations
- **HControl, ICSP, and HiQNet Translation Built-In** – Native integration with new and legacy HARMAN Professional products
- **Secure Linux Platform** - Engineered to surpass the requirement of the most secure environments
- **ICSLan Port** - Create an isolated network for controlled devices

## Specifications

| CONTROL PORTS & INDICATORS - FRONT |   |
|------------------------------------|---|
| STATUS Indicator                   | RGB LED – see manual for detailed description   |
| ID Button                          | ID pushbutton used during boot to revert to factory configuration or factory firmware   |
| USB-C Program Port                 | Connection to PC for virtual terminal for MU configuration  |
| USB-A Host Port                    | Type-A USB host port <ul style="list-style-type: none"> <li>• USB Mass Storage – for external logging</li> <li>• FLIRC – IR Receiver for IR hand control input</li> </ul> |
| LINK / ACT Indicator               | Lit when connected to a network. Blinks upon network activity.  |
| P1 / P2 LED                        | Programmable LEDs available to control scripts  |
| Serial TX / RX LED                 | Activity LEDs for each port in each direction. Blinks on activity.  |
| IR TX LED                          | Activity LEDs for the IR/Serial port. Blinks on transmission.   |
| I/O LED                            | LED indication of I/O Status. On for digital input or output active   |
| Relay LED                          | LED indication of Relay state: On for engaged relay   |

| CONTROL PORTS & INDICATORS - REAR |  |
|-----------------------------------|--|
| Power                             | 3.5mm Phoenix 2-pin connector with retention screws for 12vdc input  |
| LAN Port                          | RJ-45 10/100 BASE-T for Ethernet communication<br>Auto MDI/MDI-X<br>DHCP Client  |
| ICSLan Port                       | RJ-45 10/100 BASE-T for Ethernet communication<br>Auto MDI/MDI-X<br>DHCP server<br>Provides isolated control network   |
| USB Host Port                     | 2x Type-A USB host port <ul style="list-style-type: none"> <li>• USB Mass Storage – for external logging</li> <li>• FLIRC – IR Receiver for IR hand control input</li> </ul>   |
| RS-232/422/485 Port 1             | 3.5mm Phoenix 10-pin connector <ul style="list-style-type: none"> <li>• 12VDC @ 0.5A</li> <li>• RX- Balanced line input for RS-422/485</li> <li>• RX+ Balanced line input for RS-422/485</li> <li>• TX- Balanced line output for RS-422/485</li> <li>• TX+ Balanced line output for RS-422/485</li> <li>• RTS Ready to Send for Hardware Handshaking</li> <li>• CTS Clear to Send for Hardware Handshaking</li> <li>• TXD Unbalanced line output for RS-232</li> <li>• RXD Unbalanced line input for RS-232</li> <li>• GND – Signal ground for RS-232</li> </ul> |
| RS-232 Ports 2-4                  | 3.5mm Phoenix 5 pin connector <ul style="list-style-type: none"> <li>• RTS Ready to Send for Hardware Handshaking</li> <li>• CTS Clear to Send for Hardware Handshaking</li> <li>• TXD Unbalanced line output for RS-232</li> <li>• RXD Unbalanced line input for RS-232</li> <li>• GND – Signal ground for RS-232</li> </ul>  |
| Relays 1-4                        | 3.5mm Phoenix 8 pin connector<br>4 pairs – Contact Closure output for Normally Open contact  |
| IR 1-4                            | 3.5mm Phoenix 8 pin connector<br>4 pairs – IR/Serial output + ground   |
| I/O 1-4                           | 3.5mm Phoenix 6 pin connector <ul style="list-style-type: none"> <li>• 12VDC @0.5A</li> <li>• 4x I/O pins configurable as Analog In, Digital In, or Digital Out</li> <li>• Ground</li> </ul>   |

| POWER              |  |
|--------------------|--|
| Power Requirements | DC input voltage (typical): 12 VDC<br>DC current draw: 3A Max<br>DC range, voltage: 9-18 VDC |
| Power Consumption  | 36 Watts Max   |

| ENVIRONMENTAL         |                           |
|-----------------------|---------------------------|
| Operating Temperature | 32° to 122°F (0° to 50°C) |
| Storage Temperature   | 14° to 140°F (0° to 60°C) |
| Operating Humidity    | 5% to 85% RH              |
| Heat Dissipation (On) | 10.2 BTU/hr               |

| GENERAL                    |   |
|----------------------------|---|
| Product Dimensions (HxWxD) | 1 RU - 1.7" x 9.14" x 17.32" (43.3 mm x 232.16mm x 440mm)   |
| Product Weight             | 6.05 lb (2.75kg)  |
| Shipping Weight            | TBD   |
| Included Accessories       | <ul style="list-style-type: none"> <li>•1x 2-pin 3.5 mm mini-Phoenix PWR connector</li> <li>•1x 6-pin 3.5 mm mini-Phoenix I/O connector</li> <li>•1x 10-pin 3.5mm mini-Phoenix RS232/422/485 connector</li> <li>•3x 5-pin 3.5mm mini-Phoenix RS232 connectors</li> <li>•2x CC-NIRC, IR Emitters (FG10-000-11)</li> <li>•2x removable rack ears</li> </ul> |
| Regulatory Compliance      | ICES 003<br>CE EN 55032<br>AUS/NZ CISPR 32<br>CE EN 55035<br>CE EN 62368-1<br>IEC 62368-1<br>UL 62368-1<br>VCCI CISPR 32<br>RoHS / WEEE compliant   |



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