

# Model 25x86 Logic Processor



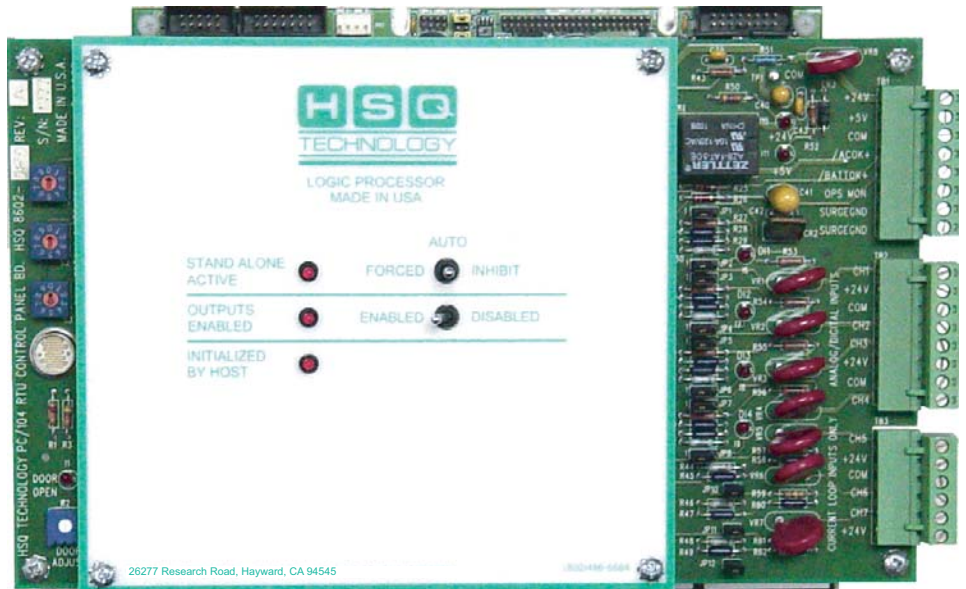
Intelligent Data Acquisition and Control

Technical Summary

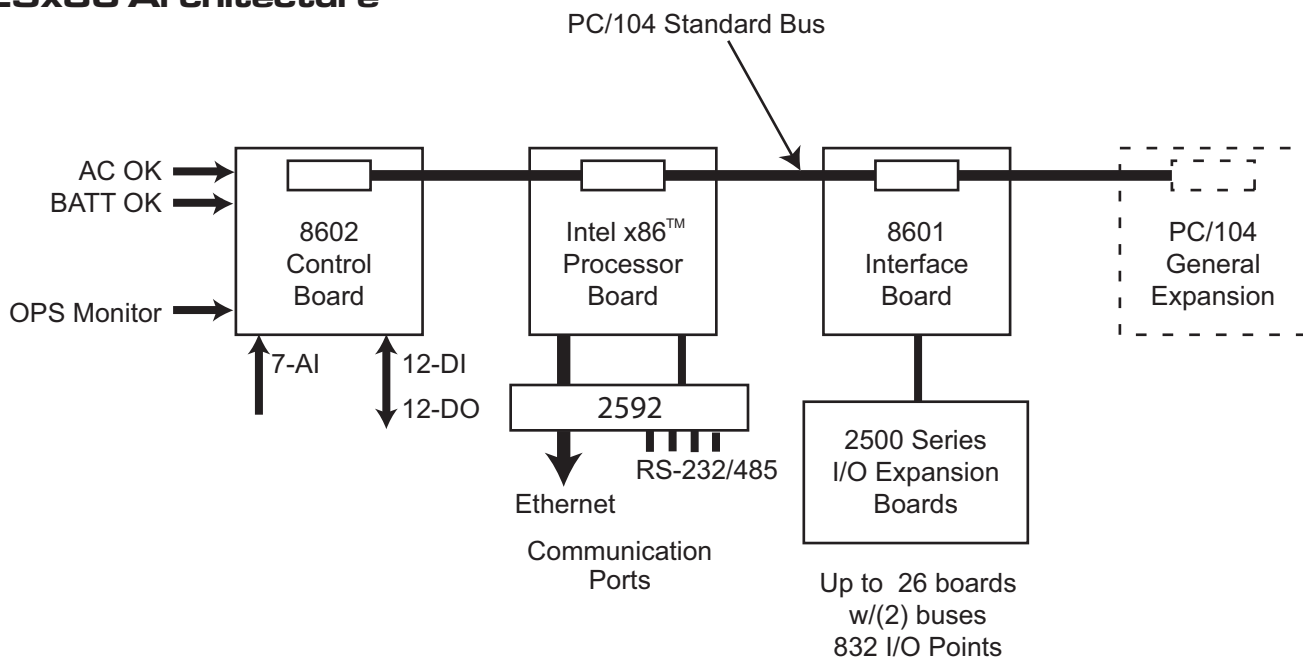
## Key Features

- Industrial Intel x86™-based Processor
- Open PC/104 Bus Architecture
- HSQ Model 2500/86 Compatibility
- Distributed Alarm and Data Processing
- Sequence of Events (SOE) Buffering
- Synchronized Real Time Clock
- Intelligent Stand Alone Control
- VisualCL Programming (IEC 1131-3 Based)
- Scalable I/O Battery
- Backup Power Supply Option
- Redundant Power Supply Option
- Redundant Processor Option
- IEEE 802.3 10Base-T Ethernet
- IP LAN/WAN Support
- MODBUS Master and Slave Capability

The Model 25x86 Logic Processor Stack is an Intel x86™-based data acquisition and control computer intended for a wide range of telemetry, SCADA, distributed automation and facilities management applications. The 25x86 processor board provides software and communications compatibility with existing HSQ Model 2500/86 and HSQ Model 2500 Logic Processors.



## 25x86 Architecture



## Processor Boards

|                      |   |
|----------------------|---|
| Processor Type:      | ULV Intel® Celeron® 400MHz standard, high clock rates available       |
| Memory:              | 128Mb SDRAM standard, expandable                                      |
| Non-Volatile Memory: | 64Mb CompactFlash standard, expandable                                |
| Real Time Clock:     | Year, Month, Day, Hour, Minute, Seconds and an On-Board Clock Battery |
| Watchdog Timer:      | Automatic System Reset after Software Failure                         |
| Ethernet Interface:  | Embedded 10/100, dual port optional                                   |
| Serial Ports:        | Three RS-232 & One RS-232/422/485 standard, expandable, USB available |
| Comm Protocol:       | HSQ COS Protocol, MODBUS RTU, MODBUS ASCII, DNP3, and SC1801          |
| Polling Protocol:    | Allen Bradley DF1, ASI, MODBUS RTU, MODBUS ASCII, and 6B13            |
| PC/104 Connector:    | 32 bit PC/104-Plus Bus  |

## HSQ 8602 Control Panel Board

|                          |   |
|--------------------------|---|
| Indicators:              | Power, Stand Alone Active, Outputs Enabled, Initialized by Host, Door Open  |
| Switches:                | Stand Alone Mode (Forced/Auto/Inhibit), Outputs Enable/Disable  |
| Embedded I/O:            | 12 TTL Digital Inputs, 12 TTL Digital Outputs<br>4 Analog Inputs, (4-20mA, 0-1mA, 0-5V, 0-10V) (Note: Configurable as 24VDC Digital Inputs)<br>3 Analog Inputs (4-20mA) |
| I/O Expansion Bus Port:  | 2500 Series I/O Expansion Boards, up to 26 boards, 832 points   |
| Battery Voltage Monitor: | On-Board AI Monitors +24VDC Supply Voltage, Reads Battery Volts During Discharge  |
| AC OK Monitor:           | TTL from 2585 Power Control Board, Indicates AC Power Being Used, i.e., Battery Not Discharging   |
| Battery OK Monitor:      | TTL from 2585 Power Control Board, Indicates Defective Battery  |
| Address Switches:        | Unit Address, 1-999   |
| Ops Monitor Relay:       | 24VDC, 10A Maximum  |
| Door Alarm:              | Photocell Activates Internal Alarm Point When Illuminated, Adjustable Threshold   |

## General

|                  |  |
|------------------|--|
| Logic Power:     | 5 VDC, 15 W Peak, 10 W Idle  |
| Field I/O Power: | 24VDC, Power Consumption Varies by I/O Configuration   |
| Temperature:     | 0-60°C Operating<br>(Optional Thermostatically Controlled Heater for Extended Low Temperature) |
| Humidity:        | 5-95 Percent Relative Humidity, Non-Condensing   |
| Dimensions:      | 17.78 cm x 25.40 cm (7" H x 10" W) - Depth Varies According to Board Configuration             |

## HSQ TTL I/O Interface Boards

- 1046 Digital Input, 8 Channel 24 VDC
- 1047 Digital Output, 8 Channel 24 VDC
- 1332 Digital Output, 8 Channel Form C 10 Amp relay
- 8646 Digital I/O (12 Input / 12 Output) 24 VDC

## 2500 Series I/O Expansion Boards

- 2507 Analog Output, 4 Channel
- 2508 Analog Input, 32/16 Channel
- 2509 Digital Input, 32 Channel
- 2510 Digital Output, 64 Channel
- 2533 Digital Output, 32 Channel
- 2534 Intelligent Digital Input, 32 Channel (SOE to one Millisecond)
- 2548 Relay Digital Output, 16 Channel Form C 10 Amp Relay
- 2569 16 Digital Inputs and 16 Digital Output
- 2587 64 Digital Inputs or 64-Counter Inputs (TTL)  
(Digital Inputs can be used as Counter Inputs)



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