



DESCRIPTION

The AspectFT-Matrix™ Area Controller is a base hardware platform designed to provide flexible area control applications to a building automation system. Through the use of AAM's Facilitating Technology (FT), AspectFT®, the AspectFT-Matrix Area Controller has the ability to provide traditional control features such as alarming, trending, scheduling, and extensive custom programming. In addition, it integrates with popular internet programs to allow end-users more freedom. With AspectFT, your PC, tablet, or smart device can integrate with your building easily and efficiently.

Also included are next generation features such as the ability to push and pull data with popular networked databases, and to serve graphical user interface pages - thus eliminating the need for a dedicated operator workstation or expensive add-on software to view a system.

FEATURES & OVERVIEW

HARDWARE SPECIFICATIONS

ARM920T Processor
Extruded Aluminum Enclosure
Optional Integrated 56k Modem
128 MB RAM

COMMUNICATIONS

10/100 MB Ethernet Port
RJ-45 Connection
1 or 2 EIA-485 Ports (model dependent)
with pluggable terminal blocks

OPERATING SYSTEM

Embedded Linux OS
Java™ Virtual Machine (JVM)
AspectFT Runtime Engine



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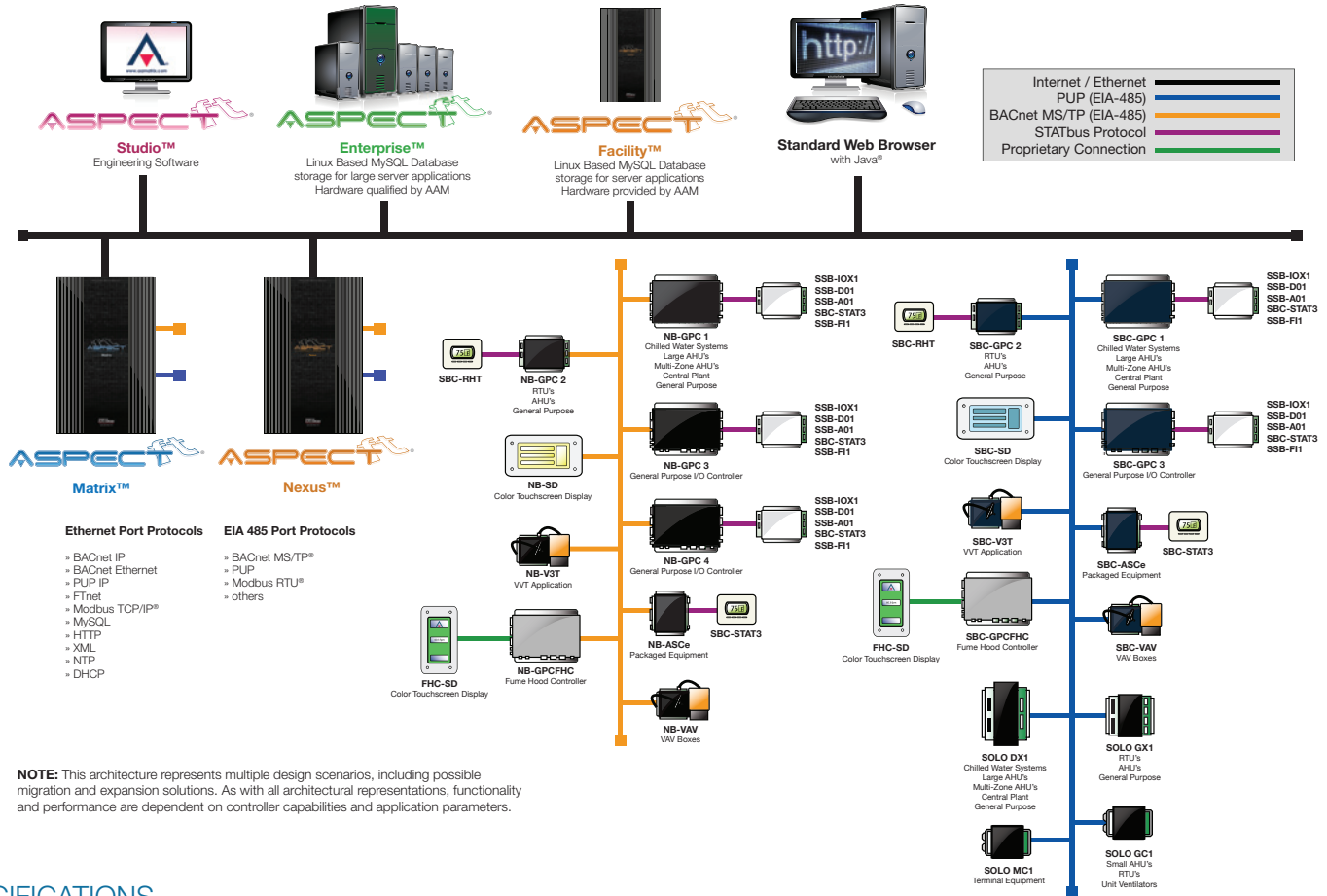
- ▶ **Multiple Communication Protocols**
Interacts seamlessly with AAM PUP and BACnet® protocol products, as well as other third-party protocols like MODBUS®
- ▶ **AspectFT Control Engine**
Alarm, trend, energy and schedule management, and custom programming capabilities
- ▶ **Java-based Graphical User Interface**
Accessible from most standard web browsers and does not require a proprietary software plug-in
- ▶ **Receive Important Building Information**
AspectFT utilizes common web technologies to allow the end-user more freedom. Through common e-mail and internet protocols, almost any smart device or computer can receive critical data without the need for special add-on software from AAM.
(For RSS, Aspect Viewer can be downloaded from AAM Toolbox)
- ▶ **Schedule & Calendar Implementation**
Interact with iCalendar format tools such as Microsoft Outlook® 2007, iCal®, Google Calendar™ and other popular programs
(maximum of 10 schedules recommended)

(for more compatibility, please see the AspectFT-Nexus™ and AspectFT-Facility™ datasheets)
- ▶ **Remote Commissioning Access**
AAM products can be programmed and flash upgraded over IP through this device
- ▶ **Comprehensive User/Group Based Security**
Restrict or allow access to myriad of points based on individual or group credentials
- ▶ **SQLite Support**
USB Based onboard database storage
(requires license and customer supplied USB drive)

Model	RS-485 Ports	Device Limit	Port Limit	
MATRIX-SPO*	1	32	32	* -M : integrated 56k modem variant available for dial in connectivity for: ▶ AAM Engineering Tool access to network controllers ▶ Project webpage viewing ▶ Project Deployment
MATRIX-SPX*	1	64	64	
MATRIX-DPO*	2	64	32	
MATRIX-DPX*	2	128	64	

NOTE: Depending on project size and resource load, modem access may provide less than desirable response times

SYSTEM ARCHITECTURE



SPECIFICATIONS

CPU

Processor: ARM9 with embedded Linux OS
Memory: 128 MB SDRAM, 128 MB flash

Connections

EIA-485:

- Connection Type:** 3 position
- Termination Count:** model dependent - up to 2 connections
- Baud Rates:** 9.6 / 38.4 / 57.6 / 76.8 / 115.2 kbps
- Termination:** 249 Ohm - switch selectable
- Biasing:** 3.32k - switch selectable
- LED:** indication for TXD, RXD, Byte-Error, Parity-Error
- Protocol:** license enforced, driver selectable
- Network Load:** license enforced, up to 64 devices per port

Ethernet:

Connection Type: 1 RJ-45 female - 10/100 MB auto-sensing

Setup & Configuration

Software: AspectFT-Studio w/ USB copy protection key & license file
Browser: Internet Explorer 7 of later, Mozilla Firefox 3.0 or later, Safari 3.2 or later, Google Chrome 1.0 or later

Dimensions

12.90" x 8.34" x 4"

Power Requirements

Connection / Source: 2 position / 11-29 VAC/VDC - 50/60 Hz - 2.7 A max

Operating Conditions

Temperature: 32° F to 122° F (0° C to 50° C)
Humidity: 0 to 80% RH non-condensing
Altitude: -2000 to +10,000 ft (-650 to 3500 m)

Agency Approvals

CE Approved
FCC, Class A Computing Device: Part 15
UL Listed 916
Management Equipment, Energy (PAZX)
UL Listed 873
Component Temperature-Indicating & Regulating Equipment (XAPX2)
UL Listed
Component Temperature-Indicating & Regulation Equipment for Canada (XAPX8)

Upgrade Option	Description
ASPECT-MAT-STW-UPGR	upgrade enables local storage option, USB accessed - SQLite (USB flash drive not included)
ASPECT-MAT-SPO-UPGR	upgrades SPO hardware from 32 to 64 devices
ASPECT-MAT-DPO-UPGR	upgrades DPO hardware from 32 to 64 devices (128 total)



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Part No. 1E-05-00-0131