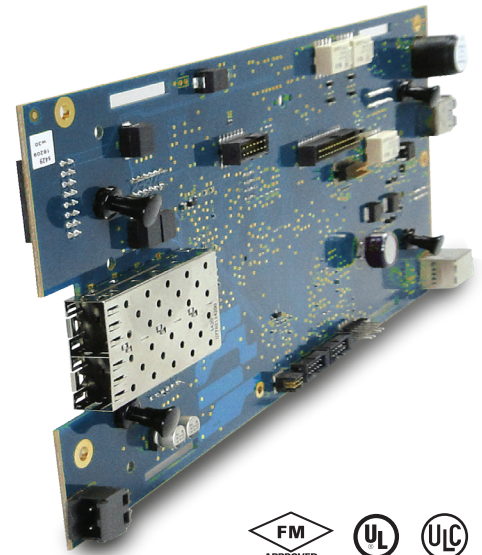


LIFE SAFETY & INCIDENT MANAGEMENT

EST4 Aspirating Smoke Detector Central Processing Unit

4-ASDCPU


 7170-1657:
0508

Overview

The 4-ASDCPU is the gateway between EST4's Emergency Communications Platform and ModuLaser's network using the FHSD8320-ULF Command Display Module or Xtralis™ VESDAnet network using the FW-HSSX1 high level interface (HLI) device.

The 4-ASDCPU interprets/translates ModuLaser/VESDAnet event information while displaying it across any LCD that resides on an EST4 network. This integration allows programmers to trigger outputs associated with ModuLaser/VESDA detector input events, which includes reporting them to a central monitoring station (CMS).

The 4-ASDCPU resides within EST4 enclosures, making them an integral part of the EST4 network, while supervising connection to Command modules or FW-HSSX1 high level interface devices.

Using the 4-ASDCPU as the gateway to ModuLaser/VESDAnet, allows EST4 to reset, disable and silence detector's local buzzer (where applicable), directly from any LCD.

Event notifications from up to 112 ModuLaser detectors or 61 VESDA detectors per 4-ASDCPU are displayed on EST4 with up to a maximum of 30 or 25 4-ASDCPUs respectively, per EST4 network.

Standard Features

ModuLaser

- Fully supervised connection from the 4-ASDCPU to ModuLaser's Command Module(s) utilizing one (eth0) or two (eth0 and eth1) Ethernet ports with corresponding quantity of 4-FWAL-CAT SFP communication adapters
- Supports up to 112 ModuLaser detectors per 4-ASDCPU
- Up to 30 4-ASDCPUs connected to ModuLaser detectors may reside on a single EST4 network
- Allows reset, disable and enable commands from EST4's LCD display
- Allows ModuLaser events to be programmed to activate output events on EST4

VESDA

- Leverages the existing 4-USBHUB module to communicate to the FW-HSSX1 HLI using an RS-232 connection
- Fully supervised connection from the 4-ASDCPU to the FW-HSSX1
- Supports up to 61 VESDA detectors per 4-ASDCPU
- Up to 25 4-ASDCPUs may reside on a single EST4 network
- Allows reset, disable and silence commands from EST4's LCD display and FireWorks
- Allows VESDA events to be programmed to activate output events on EST4

Application

ModuLaser

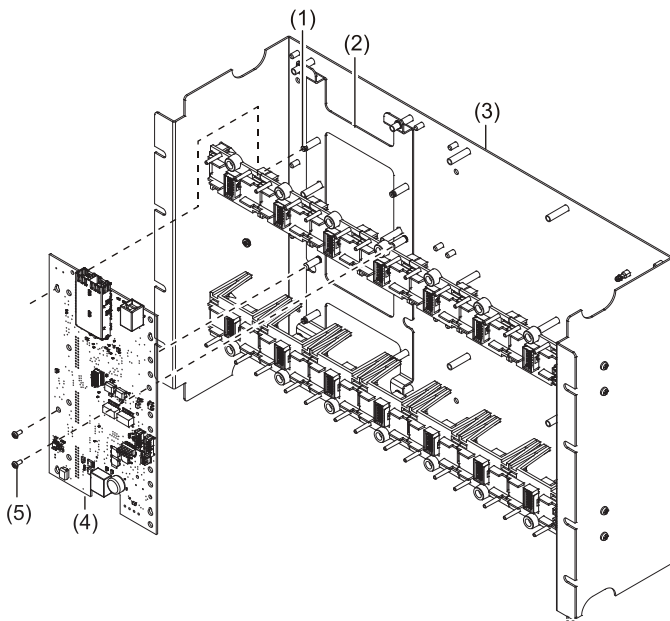
EST4 integrates ModuLaser detectors with the use of the 4-ASDCPU. The 4-ASDCPU is the gateway that provides communication while supervising the connection to ModuLaser Command Modules.

EST4's LCD annunciates ModuLaser detector events that indicate Fire 2, Fire 1, Pre-Alarm, Aux, General Fault, General Warning and Isolate/Disable faults, individually, while providing the ability to enable, disable, and reset ModuLaser detectors.

Installation

The 4-ASDCPU has several mounting installation options. It can be mounted to the back of a chassis utilizing mounting bracket 4-BRKT-CB, and can also be mounted on the side of a chassis with mounting bracket 4-BRKT-CS. The other mounting option is at the bottom of a main enclosure using the mounting plate 4-MPLT. Finally, it can also be mounted onto a 4-24ANNMT mounting enclosure directly to the back of the backbox.

Figure 1: 4-ASDCPU module on 4-BRKT-CB



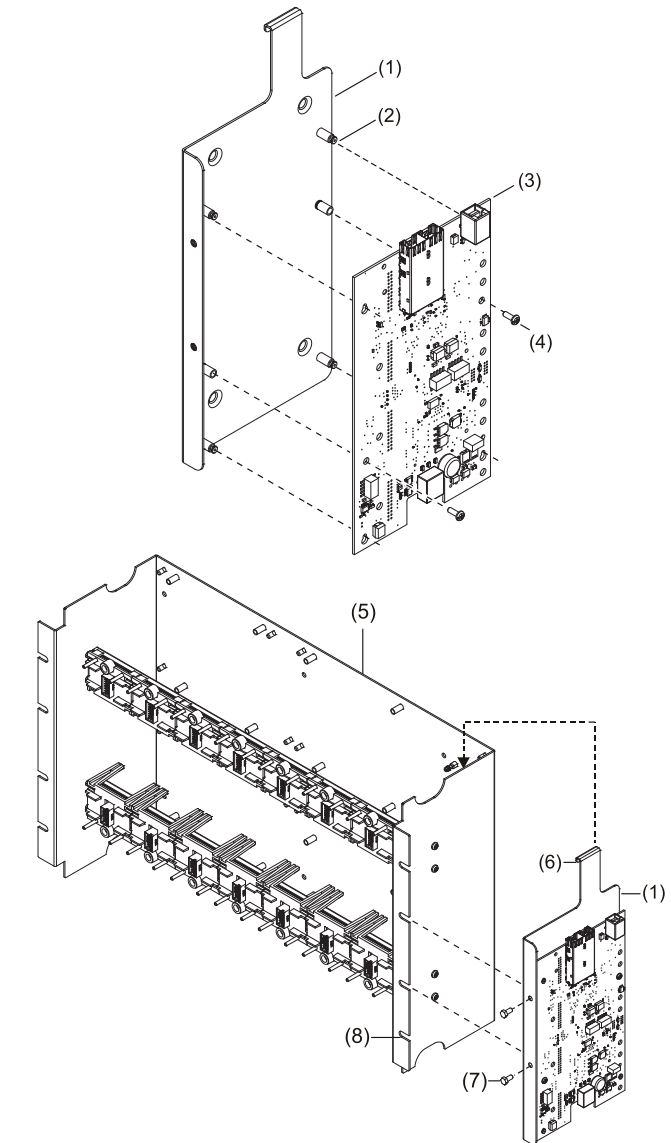
- (1) Standoffs (4X)
- (2) 4-BRKT-CB bracket
- (3) 3-CHAS7 chassis
- (4) 4-ASDCPU module
- (5) 6-32 x 1/2 screw (2X)

VESDA

The 4-ASDCPU in combination with the 4-USBHUB adds integration capability with VESDAnet network devices and EST4.

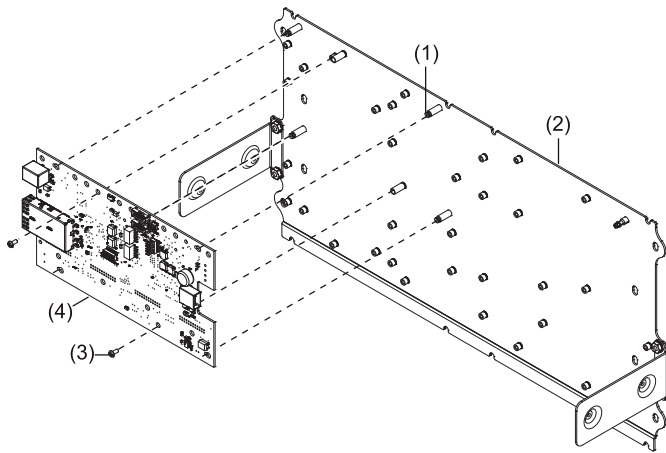
The 4-ASDCPU is the gateway that provides communication while supervising the connection to the FW-HSSX1 high-level interface card. EST4's LCD annunciates VESDA detector events that indicate Alert, Action, Fire 1, Fire 2, Urgent Fault, Minor Fault, and Isolate/Disable Fault individually, while providing the ability to silence, disable and reset VESDA detectors.

Figure 2: 4-ASDCPU module on 4-BRKT-CS



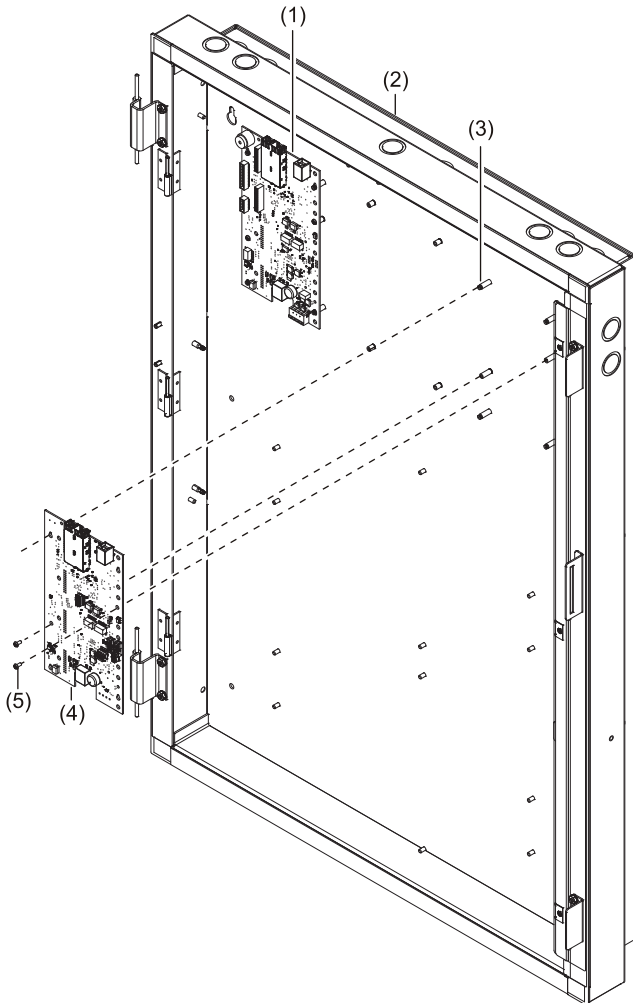
- (1) 4-BRKT-CS bracket
- (2) Standoffs
- (3) 4-ASDCPU module
- (4) 6-32 x 1/2 screw (2X)
- (5) 3-CHAS7 chassis
- (6) Hook in bracket
- (7) 6-32 x 1/4 cap screw (2X)
- (8) Slots in 3-CHAS7

Figure 3: 4-ASDCPU module Installation on 4-MPLT



- (1) Standoffs (4X)
- (2) 4-MPLT plate
- (3) 6-32 x 1/2 screw (2X)
- (4) 4-ASDCPU module

Figure 4: 4-ASDCPU module in a 4-24ANNMT



- (1) 4-ANNCPU
- (2) 4-24ANNMT
- (3) Standoffs (4X)
- (4) 4-ASDCPU module
- (5) 6-32 x 1/2 screw (2X)

Engineering Specification

ModuLaser

The system shall provide integration with ModuLaser networks that consist of FHSD8300-ULF, FHSD8310-ULF, FHSD8320-ULF and FHSD8330-ULF or any combination thereof.

The integration shall be accomplished through the use of a minimum of one 4-ASDCPU and one FHSD8320-ULF Command Module.

The system shall have the capability of annunciating ModuLaser detector events that originate from the Fire 2, Fire1, Pre-Alarm, Aux, General Fault, General Warning and Isolate/Disable fault categories.

The system shall also have the capability of delivering disable commands to ModuLaser devices, annunciating the disablement status on EST4's LCD display, while including the ability to deliver reset commands to them.

VESDA

The system shall provide integration with VESDAnet network with VEP-A00-1P, VEP-A00-P, VEP-A10-P, VEU-A00, VEU-A10, VEA-40-A00, VEA-040-A10, VES-A00-P, and VES-A10-P VESDA detectors.

The integration shall be accomplished through the use of a 4-ASDCPU and one 4-USBHUB connected to a FW-HSSX1 high level interface card.

The system shall have the capability of annunciating VESDA detector events that originate from the Alert, Action, Fire 1, Fire 2, Urgent Fault, Minor Fault, and Isolate/Disable Fault categories.

The system shall also have the capability of delivering silence commands to the detector's local buzzer when one is integrated onto the detectors, disablement capability of detectors that shall announce as such on the panel's LCD display and include the ability to deliver reset commands to the VESDA devices.

Technical Specifications

Current Standby	128 mA at 16 VDC 92 mA at 24 VDC 77 mA at 32 VDC
Alarm/active	129 mA at 16 VDC 92 mA at 24 VDC 79 mA at 32 VDC
Universal Serial Bus (USB) ports	1 USB 3.0, Type A – female port 1 USB 3.0, Type B – female port
USB cables	P/N 4-CABLUSBSM – 3.0 USB, 29.5 in.(0.75 m), included. P/N 4-CABLUSBLG – 3.0 USB, 59.0 in. (1.5 m), sold separately. J1, Figure 6 [1]: Only use 4-CABLUSBSM or 4-CABLUSBLG cables. J14, Figure 6: 4-CABLUSBSM or 4-CABLUSBLG cables.
Agency Approvals	FM, UL, ULC, CFMS 7170-1657:0508
Operating environment Temperature	32 to 120°F (0 to 49°C)
Relative humidity	0 to 93% noncondensing

[1] Only use listed USB cables. Retail USB cabling is not sufficient for this application.

Ordering Information

Model # (SKU)	Description	Shipping Weight
4-ASDCPU	Aspirating Smoke Detector CPU module	0.95lb (0.43kg)
Accessories and related equipment		
4-USBHUB	USB Multiport Hub Module	0.85lb (0.39kg)
4-CABLUSBLG	Cable, USB 3.0 A-B, Male, Long	0.31lb (0.14kg)
4-CABL0542	Cable interconnects the 4-CPU to the inner door rail when no 4-LCD display is installed in the cabinet.	0.58lb (0.26kg)
4-FWAL-CAT	SFP Network Firewall Adapter, CAT5 UTP Copper, 100Base-TX, 100Mbps, for use in EN54/UL/ULC markets	0.2lb (0.09kg)



LIFE SAFETY & INCIDENT MANAGEMENT

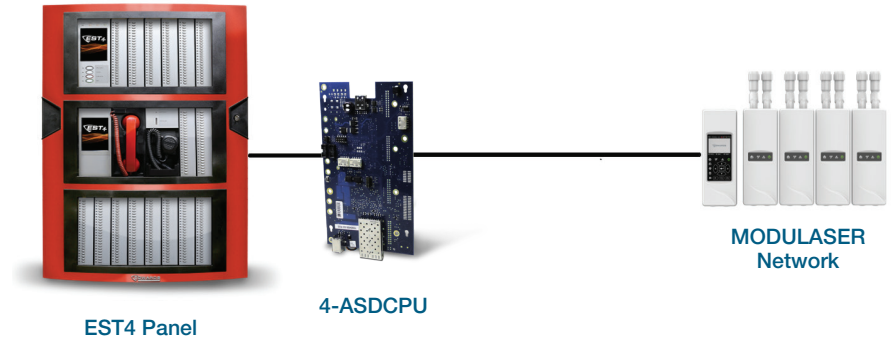
Contact us

Phone: 800-655-4497 (Option 4)
Email: edwards.fire@carrier.com
Website: edwardsfiresafety.com

8985 Town Center Pkwy
Bradenton, FL 34202

© 2024 Carrier
All rights reserved.

ModuLaser Configuration



VESDA Configuration

