



Features

- ▶ Microprocessor Based Control panel
- ▶ Automatic Ground Fault Locator
- ▶ Service Mode Switch
- ▶ FLASH-Based Distributed Database
- ▶ 8 Option Card Slots w/ 4 Amplifier Backup Slots
- ▶ Motherboard Prewired for all Options
- ▶ No Wiring Between Option Cards
- ▶ Supports up to 8 Analog Addressable Loops
- ▶ Supports Conventional Devices
- ▶ Supports Local Audio Signal Generation with Backup
- ▶ Supports up to 4 Audio Amplifiers with 1:1 or 1:Many Backup Scheme
- ▶ Liquid Crystal Display (LCD)
- ▶ Diagnostic Fault LEDs
- ▶ Degrade Mode Operation
- ▶ Field Programmable

Installation

The DAB-7 Motherboard mounts in a CAB-50 or a CAB-36 enclosure.

Approvals and Listings

Underwriters Laboratories (File No. S2184)
NYC MEA (MEA No. 32-95-E)



Description

The DAB-7 Motherboard carries all installed option cards that make up a DAN-7 cabinet. The DAN-7 Distributed Addressable Node is a remote data gathering cabinet for incoming and outgoing signals in the Life Safety Net (LSN) 2000 system. A single cabinet may serve a floor, a group of floors, or an entire building, and may be used for Fire Protection, Mass Notification / Communication, Security, and/or Lighting and Motor Control Systems. The DAN Cabinet consists of a CAB-50, and it is capable of mounting the DAB-7 Motherboard and its associated power supplies with batteries.

The DAN-7 is a microprocessor-based control panel with emergency voice/alarm communication capabilities. Audio is amplified within the cabinet. Amplifiers may be installed in a one-to-one backup and as well as a one-to-many backup configuration. A distributed Firefighter Warden Phone communications system is also supported.

Optional input monitoring and output controlling cards are supported by the DAN-7. These cards support conventional and addressable input and output circuits and devices. It is these inputs that make up the protective functions of the DAN and these outputs that control indicating devices and building control functions.

The DAN-7 provides ground-fault detection and isolation, automatically finding any grounded pair of device wires connected to the DAN. The distributed database construction of the DAN allows surviving connected DANs to operate alone or in conjunction in the event of a command station failure or severed communication riser. Additionally, a failed microprocessor in the DAN results in a second-stage degrade mode to ensure protection at all times. All field wiring is terminated at the DAB-7 Motherboard, allowing circuit cards to be removed and serviced easily without removing any wires from the backplane motherboard.

The DAN-7 contains a technician Service Mode Switch, an English-Language 2x16 character diagnostic display (the optional DIS-1), and eight option card slots. The minimum configuration of the DAB-7 Motherboard consists of a COM-2, an AMT-7, and up to eight of the following option cards: ALT-7, ICM-4, ICM-8 and NCM-8. Up to four ASM-7 primary amplifiers and up to four ASM-7 backup amplifiers may be installed. A dedicated slot for a MON-7 Network Monitor card is also provided by the DAB-7 Motherboard.

Power is supplied from up to four PS-7A power supplies and a PDB-3 Power Distribution Board. All power supplies and associated batteries are fully supervised.

Engineering Specifications

DAB-7 MOTHERBOARD

The DAB-7 Motherboard contains a COM-2 slot, an AMT-7 slot, a MON-7 slot, eight option card slots, and four backup amplifier slots. All vertical riser wiring and horizontal field wiring is terminated at the DAB-7 Motherboard. A Service Mode Switch and a Ground Fault Test Pushbutton are provided on the Motherboard, while a Power Switch is provided by the associated PDB-3 Power Distribution Board. A DIS-1 may be installed to enhance diagnostics. Technician test clips for the Warden Phone Riser and Ground are provided.

COM-2 COMMUNICATION CARD

The COM-2 Communication Card is the DAN-7 network node controller capable of communicating with the AMT-7, the DIS-1 and any option cards installed. The COM-2 is microprocessor-driven and contains the distributed intelligence and database for its DAN. Watchdog circuitry and degrade mode circuitry ensure reliable node operation. The COM-2 is installed in a dedicated slot in the DAB-7 backplane.

AMT-7 AUDIO, MONITOR and TONE GENERATOR CARD

The AMT-7 monitors riser microphone & warden telephone wiring as well as all power supplies and batteries required to power the DAN-7 cabinet. Additionally, the AMT-7 supports three simultaneous tone generator circuits that create automatic evacuation and inquiry tones. The AMT-7 supports optional digital message playback. Audio Sources are selected on the AMT-7 and routed to amplifiers that may be installed.

DIS-1 DISPLAY CARD

The DIS-1 Display Card contains a 2 line by 16 character backlit LCD display. This device displays information relative to the DAN in which it is installed. Information is displayed in English text indicating devices that are in an Alarm or Trouble condition. This display is also used by the technician for troubleshooting the location of ground faults. This card plugs into a dedicated location in the DAB-7 motherboard.

MON-7 MONITOR CARD

The MON-7 Monitor Card is required when Style 7 (Class A) wiring is employed for the Network riser wiring. The card is installed in the MON-7 slot of the last DAN on the NET B Data Line Riser. The MON-7 Card is also used to terminate the Network B riser. Required for Style 7 Network Data Line wiring.

DAB-7 MOTHERBOARD OPTION CARDS

ALT-7 ADDRESSABLE LOOP & TELEPHONE MODULE

The ALT-7 contains one analog addressable signaling line circuit (SLC). It communicates with up to 126 FIRECOM addressable devices. The SLC can be configured and wired as either Style 4 (Class B) or Style 6 (Class A). A 1.5 Ampere auxiliary power output is available to power addressable devices that require additional operating current. The ALT-7 also contains 4 Style X (Class B) or two Class Y (Class A) Firefighter/Warden telephone circuits. All connections to the ALT-7 are power limited.

ICM-8 INITIATING CIRCUIT MODULE

The ICM-8 Initiating Circuit Module contains 8 Style B (Class B) initiating device circuits. Each circuit is capable of providing 3mA of smoke detector supervisory current if required. The ICM-8 supports an integrated degrade mode function that can be set for each of the input zones. This degrade mode allows selected outputs to activate in response to alarm state inputs in the event of a central microprocessor failure on the COM-2 card.

ICM-4 INITIATING CIRCUIT MODULE

The ICM-4 Initiating Circuit Module contains 4 Style D (Class A) or Style B (Class B) initiating device circuits. Each circuit is capable of providing 3mA of smoke detector supervisory current if required. The ICM-4 supports an integrated degrade mode function that can be set for each of the input zones. This degrade mode allows selected outputs to activate in response to alarm state inputs in the event of a central microprocessor failure on the COM-2 card.

ASM-7 AUDIO/SIGNAL MODULE

The ASM-7 Audio/Signal Module contains a 30W amplifier, two speaker and two strobe/bell Notification Appliance Circuits (NAC). All NAC's can be configured as Style Y (Class B) or Style Z (Class A) and are power limited. Speaker circuits are rated at 30W @ 70VRMS, allowing the amplifier to deliver full power to any one circuit or any ratio of power to be split between the two circuits. The strobe/bell circuits are rated at 24VDC @ 1.5A max. Strobe outputs support synchronization using approved devices.

NCM-8 NOTIFICATION CIRCUIT MODULE

The NCM-8 Notification Circuit Module contains eight Style Y (Class B) Notification Appliance Circuits (NAC). Each NAC is rated at 24VDC@1.5A maximum. All circuits are power limited. All circuits support synchronization functions using approved devices.

NCM-4 NOTIFICATION CIRCUIT MODULE

The NCM-4 Notification Circuit Module contains four Style Y (Class B) or Style Z (Class A) Notification Appliance Circuits (NAC). Each NAC is rated at 24VDC@1.5A maximum. All circuits are power limited. All circuits support synchronization functions using approved devices.

It is our intention to keep the product information up to date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information contact: FIRECOM, INC.

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2 of 2