

## INTELLIGENT FIRE ALARM AND AUDIO NETWORK SYSTEM


**FleXNet™**


### Description

Mircom's FleX-Net™ Series Network Fire Alarm Control Panels offer modular components to meet a wide variety of applications. Designed for peer-to-peer network communications, the FleX-Net™ Series allows for a maximum of 63 nodes, while providing reliability, flexibility and expandability.

The FleX-Net™ Series is based on the proven and reliable FX-2000 Series platform. Each base panel consists of one intelligent signaling line circuit (SLC) capable of supporting 99 analog sensors and 99 addressable modules. In addition the base panel also consists of 4 Class A/B (Style Z/Y) Indicating Circuits rated at 1.7 Amps each and a large 4 x 20 back-lit alphanumeric LCD display.

The audio control provides a multi-channel distributed audio system that allows for efficient emergency paging, evacuation signaling and firefighters telephone communication. Each audio card cage supports a maximum of 4 QAA style amplifiers for a maximum of 180 watts per cabinet.

The FleX-Net™ Series network configuration allows the control panel to be connected to a Mircom network to provide additional input circuits, visual zones, programmable notification appliance circuits, and relays. Each panel can be configured using standard FX-2000 components. The network interface module allows the panels to communicate on a peer-to-peer network.

The network capabilities allow site specific customization and the ability to meet local and national requirements.

### Features

#### Fire Alarm Control

- One expandable to five Intelligent Signaling Line Circuit (SLC)
- Modular design
- Each SLC is capable of supporting 99 Analog Sensors and 99 Addressable Modules which can be wired in Class A (Style 6 or 7) or Class B (Style 4)
- Four Class A/B (Style Z/Y) Indicating Circuits rated at 1.7 Amps each
- Large 4 by 20 character Back-lit LCD Display with user friendly menu
- Correlatable Switch Inputs which allows for multi-functional outputs
- Four Alarm Queues with selector switches and LEDs for Alarm, Supervisory, Monitor and Trouble
- Auxiliary relay contacts for Common Alarm, Common Supervisory and Common Trouble
- RS-232 output for remote system printer or CRT
- Two Event History Logs comprised of a 1000 Alarm History Log for alarm related events and a 2000 Event Log for all events
- Front Panel Auto-Configure and/or Computer laptop Programmable
- 16 zone configurable LED annunciator complete with individual slide-in labels for zone definition
- Configurable for Coded Operation
- Panel selection for Canadian (ULC) or U.S.A. (UL) requirements for smoke sensors (sensitivity) via computer laptop
- Capability to adjust Intelligent Smoke Detector sensitivity levels

#### Audio Control

- Multi-channel operation
- Distributed audio
- 5 firefighter telephone channels
- 25 or 70 volt system
- Multiple amplifier sizes
- Max. of 180 watts per Integrated Fire & Audio panel

#### Network Features

- Up to 63 nodes
- Peer-to-peer network communications
- Multiple Lobby Control Centers
- Class B (Style 4) or Class A (Style 6 or 7) wiring configuration
- Proprietary Arcnet Network Communications protocol
- Supports copper and/or fiber optic network cable



NYC  
Fire Dept.  
COA# 6064

7165-1477:111

CATALOG NUMBER

**5940**

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Mircom reserves the right to make changes at any time without notice in prices, colours, materials, components, equipment, specifications and models and also to discontinue models.

## FleX-Net™ Integrated Fire and Audio Control Panels



### FX-2009-12N Network Lobby Control Chassis

The FX-2009-12N Network Lobby Control Chassis consists of a base fire alarm panel with one isolated intelligent Signaling Line Circuit (SLC) Style 4, 6 or 7, Four Class A/B NAC circuits, a 4 line by 20 character LCD display, a 16 Zone LED Annunciator and a 12 Amp power supply. The FX-2009-12N has space to mount the FNC-2000 Fire Network Controller Module, ANC-5000 Audio Network Controller Module, TNC-5000 Telephone Network Controller Module and provision to mount up to 4 adder modules. The FX-2009-12N mounts in a BB-5000 Series enclosure and supports Audio Lobby Control modules, Fire Fighter's Lobby Control modules and FX-2000 Internal Annunciator / Programmable modules.



### ECX-0012 Expander Chassis

The ECX-0012 Expander Chassis for the FX-2009-12N supports up to 12 adder modules and has space for 2 internal annunciator modules. The ECX-0012 mounts in the BB-5000 series enclosures.



### BB-5008/BB-5014 Lobby Enclosures

The BB-5008 and BB-5014 lobby enclosures support the FX-2009-12N Network Lobby Control chassis and provide space for internal lobby control modules. The cabinets hold up to 24 AH batteries. The cabinets hold up to 24 AH batteries. The door and chassis hardware are ordered separately.

**BB-5008 Dimensions:** 36"H x 30"W x 7"D

**BB-5014 Dimensions:** 60"H x 30"W x 7"D



### FX-2000ND Integrated Fire Network Control Chassis

The FX-2000ND consists of a base fire alarm panel that includes one intelligent Signaling Line Circuit, 4 Class A/B NAC circuits and a 4 line by 20 character LCD display and a 16 zone LED annunciator. The FX-2000ND mounts in a BBX-2000(R) enclosure.



### QX-5000N Integrated Audio Network Control Chassis

The QX-5000N includes the audio and telephone control which consists of an audio card cage designed for mounting the ANC-5000 Audio Network Controller Module, TNC-5000 Telephone Network Controller Module and up to four QAA style audio amplifiers. The QX-5000N connects to the FX-2000ND Network fire alarm chassis and mounts in the BBX-2000(R) enclosure. The QX-5000N supports audio expansion with connection to up to three QBB-5001 Audio Cabinets. Each QBB-5001 can support a maximum 360 watts.



### BBX-2000 Integrated Fire & Audio Enclosure

The BBX-2000 enclosure houses the FX-2000ND fire network control chassis, QMB-5000N audio network control panel and PS-2040 power supply. The enclosure will support up to 40 AH batteries.

**Dimensions:** 60"H x 20"W x 7.75"D

## Fire Network Controller Modules



### FNC-2000 Fire Network Controller Module

The FNC-2000 provides network capability to the FX-2009-12N. One Fire Network Controller Module is required per network node panel. In addition the FNC-2000 provides an interface for adding an optional FOM-2000-SP Fiber Optic Network Adder Module. The FNC-2000 mounts in the FX-2009-12N main chassis.



### FOM-2000-SP Fiber Optic Network Adder Module

The FOM-2000-SP Fiber Optic Network Adder Module allows for the use of fiber optic cabling on the FX-2009-12N. It seamlessly connects to the interface on the FNC-2000 Fire Alarm Network Controller Module.

## Adder Loop Controller Modules



### ALCN-396S Dual Analog Loop Controller Module

The ALCN-396S Dual Analog Loop Controller Module provides two additional Signaling Line Circuits (SLC) to the FX-2003-12N consisting of 99 Analog Sensors and 99 Addressable Modules per loop. The ALCN-396S occupies one module slot in the FX-2009-12N main chassis.

## Adder Auxiliary Modules



### UDACT-300A Digital Alarm Communicator Module

The UDACT-300A Digital Alarm Communicator Module allows the FX-2003-12N to transmit addressable point information to a central station. The UDACT-300A occupies one module slot in the FX-2009-12N main chassis.

## Adder Hardwire Modules



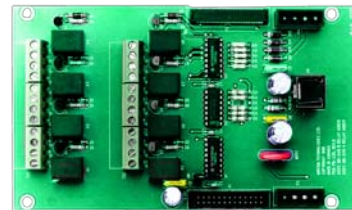
### DM-1008A Eight Initiating Circuit Module

The DM-1008A provides 8 Class B (Style B) or 4 Class A (Style D) Initiating Circuits configurable for Alarm, Supervisory or Trouble zones. The DM-1008A occupies one module slot in the FX-2009-12N main chassis.



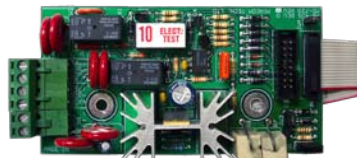
### SGM-1004A Four Indicating Circuit Module

The SGM-1004A provides 4 Class A/B (Style Z/Y) Notification Appliance Circuits configurable as Silenceable or Non-Silenceable. Each NAC circuit is rated at 1.7 Amps. Each of the NAC circuits have individual signal silence inputs which are jumper selectable. The SGM-1004A occupies one module slot in the FX-2009-12N main chassis.



### RM-1008A Eight Relay Circuit Module

The RM-1008A provides the FX-2003-12N with eight individual configurable relays per module. Each relay provides one Form C contact rated at 28 VDC @1 Amp (resistive load) as well as a Green LED to indicate that the relay is active. The RM-1008A occupies one module slot in the FX-2003-12N main chassis.



### PR-300 Polarity Reversal/City Tie Module

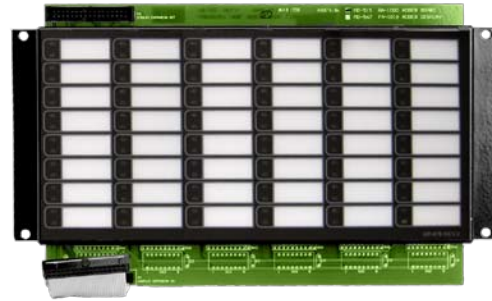
The PR-300 Polarity Reversal/City Tie Module provides the system with a supervised City Tie (24 VDC/200 mA max.) and Polarity Reversal connection (24 VDC (open circuit), 8 mA max. (shorted)). The PR-300 occupies one module slot in the FX-2009-12N main chassis.

## Remote Annunciators



### RAXN-LCD Remote LCD Annunciator

The RAXN-LCD Remote LCD Annunciator provides the same functions as the main display on the fire alarm control panel. The RAXN-LCD occupies one display position in the BB-1000 Series enclosures.



### RAX-1048TZ Programmable LED Annunciator Module

The RAX-1048TZ Programmable LED Annunciator Module provides 48 programmable bi-colored LEDs. The RAX-1048TZ connects to the main panel or the RAXN-LCD when mounted remotely. The RAX-1048TZ occupies one display position in the BB-1000 or BB-5000 Series enclosures.

## Programmable Modules



### FDX-008 Fan Damper Control Module

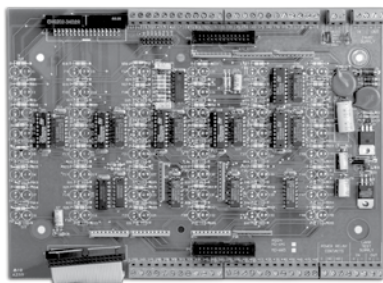
The FDX-008 Fan Damper Control Module provides individually programmed circuits which can be used for fan or damper control. The FDX-008 connects to the main panel or the RAXN-LCD and occupies one display position in the BB-1000 or BB-5000 Series enclosures.



### IPS-2424 Programmable Input Switches Module

The IPS-2424 provides 24 programmable switches that can be configured for ancillary functions such as zone bypass or added common control functions. The IPS-2424 connects to main panel or the RAXN-LCD when mounted remotely. The IPS-2424 occupies one display position in the BB-1000 or BB-5000 Series enclosures.

## Graphic Annunciator Driver Modules



### AGD-048 Adder Graphic Driver Module

The AGD-048 Adder Graphic Driver Module can be used with the MGD-32 to support an additional 48 supervised outputs. The AGD-048 mounts in a graphic annunciator wallbox or in the BB-5000 enclosures.

### Annunciator/Programmable Module Enclosures

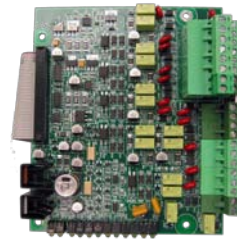
- BB-1001: 9"H x 12.75"W x 1.2"D
- BB-1002: 18"H x 12.75"W x 1.2"D
- BB-1003: 26.4"H x 12.75"W x 1.2"D
- BB-1008: 33"H x 22.5"W x 1.25"D
- BB-1012: 45"H x 22.5"W x 1.25"D

## FleX-Net™ Audio and Telephone Network Controller Modules



### ANC-5000 Audio Network Controller Module

The ANC-5000 provides audio microphone control on the network system. The ANC-5000 mounts on a plate in the FX-2009-12N or QMB-5000N.



### TNC-5000 Telephone Network Controller Module

The TNC-5000 provides five hardwired telephone circuits for the local floor panel with the first circuit configurable for the master telephone handset. The TNC-5000 mounts in the FX-2009-12N or QMB-5000N.

## Paging Control Modules



### QMP-5101N Network Master Paging Control Module

The QMP-5101N Network Master Paging Control Module includes the paging microphone and common control indicators. The QMP-5101N allows for all call paging or selective paging with the QAZT-5302 Zoned Paging and Telephone Selector Modules. The QMP-5101N occupies one module space in the BB-5000 Series enclosures.



### QAZT-5302 Zoned Paging and Telephone Selector Module

The QAZT-5302 Zoned Paging and Telephone Selector Module includes 24 zone selector switches and LEDs. The QAZT-5302 is used with the QMP-5101N Network Master Paging Control module or QMT-5302 Network Master Firefighters' Telephone module. Slide-in labels are provided to label the selector zones. The QAZT-5302 occupies one module space in the BB-1000 or BB-5000 Series enclosures.

## Firefighter Telephone Control Modules



### QMT-5302N Network Master Firefighters' Telephone Control Module

The QMT-5302N includes the Master Telephone Handset and common control indicators. The QMT-5302N supports the QAZT-5302 Paging and Telephone selector modules. The QMT-5302N occupies one module space in the BB-5000 Series enclosures.

# Audio Amplifiers



## QAA-5415-70 and QAA-5415-25 Quad 15 Watt Amplifiers

The QAA-5415-70 and QAA-5415-25 consist of four 15 watt supervised paging/speaker circuits which can be wired in Class 'B' (Style 'Y') only. The QAA-5415-70 is a 70 Volt amplifier and the QAA-5415-25 is a 25 Volt amplifier. Both models mount in the FXQ-NN card cage and occupy one amplifier slot.

## QAA-5230S-70/25 Dual 30 Watt Amplifier

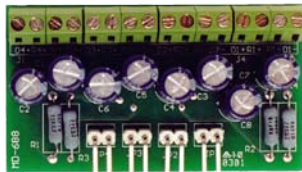
The QAA-5230S-70/25 consists of two 25 or 70 Volt 30 watt amplifiers. Each amplifier has two 15 watt supervised speaker outputs which are used for 'A' 'B' speakers per floor and are wired in Class 'B' (Style 'Y') only. The QAA-5230S-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.

## QAA-5230-70/25 Dual 30 Watt Amplifier

The QAA-5230-70/25 consists of two 25 or 70 Volt 30 watt supervised paging/speaker circuits which can be wired in Class 'A' (Style 'Z') or Class 'B' (Style 'Y'). The QAA-5230-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.

## QAA-5160-70/25 60 Watt Amplifier

The QAA-5160-70/25 consists of one 25 or 70 Volt 60 watt supervised paging/speaker circuit which can be wired in Class 'A' (Style 'Z') or Class 'B' (Style 'Y'). The QAA-5160-70/25 mounts in the FXQ-NN card cage and occupies one amplifier slot.



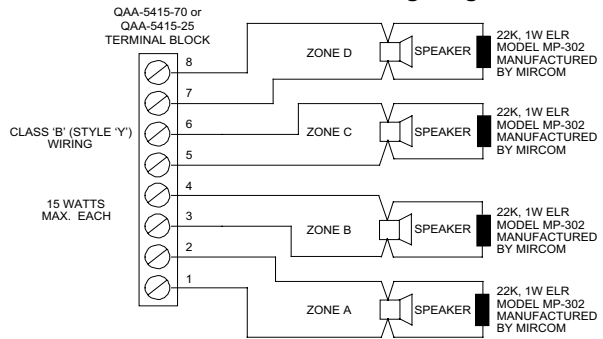
## QAA-4CLA Class 'A' (Style 'Z') Converter Module

The QAA-4CLA converts each of the four Class 'B' (Style 'Y') outputs on a QAA-5415-70 or QAA-5415-25 Amplifiers to Class 'A' (Style 'Z'). The module attaches to the bottom of the amplifier. One QAA-4CLA is required for each amplifier.

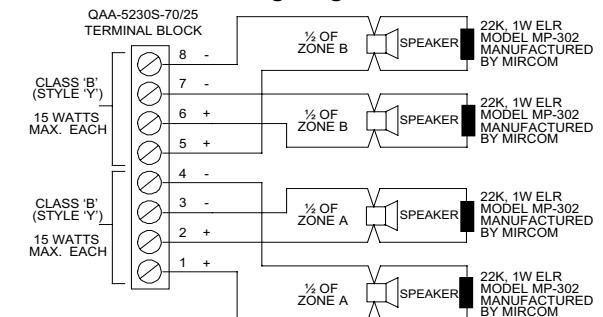
## QAA-4CLAS Class 'A' (Style 'Z') Converter Module

The QAA-4CLAS converts each of the four Class 'B' (Style 'Y') outputs on a QAA-5230S-70/25 or QAA-5230S-525-70/25 Amplifier to Class 'A' (Style 'Z'). The module attaches to the bottom of the amplifier. One QAA-4CLA is required for each amplifier.

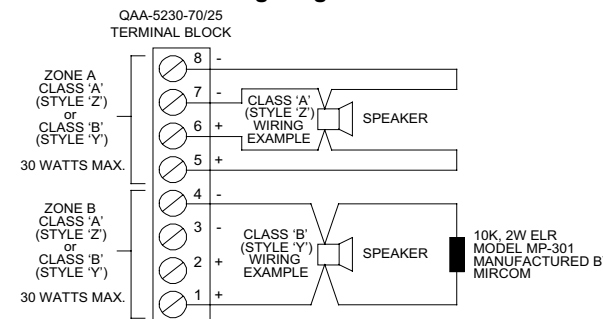
## QAA 5415-70 or QAA-5415-25 Wiring Diagram



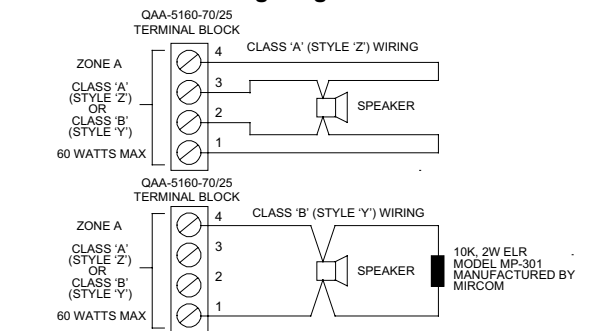
## QAA-5230S-70/25 Wiring Diagram



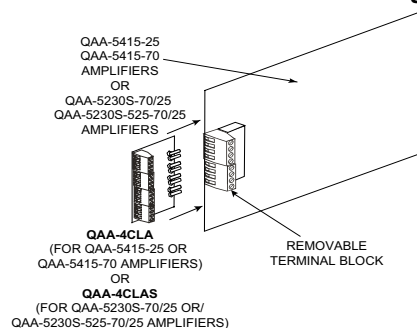
## QAA-5230-70/25 Wiring Diagram



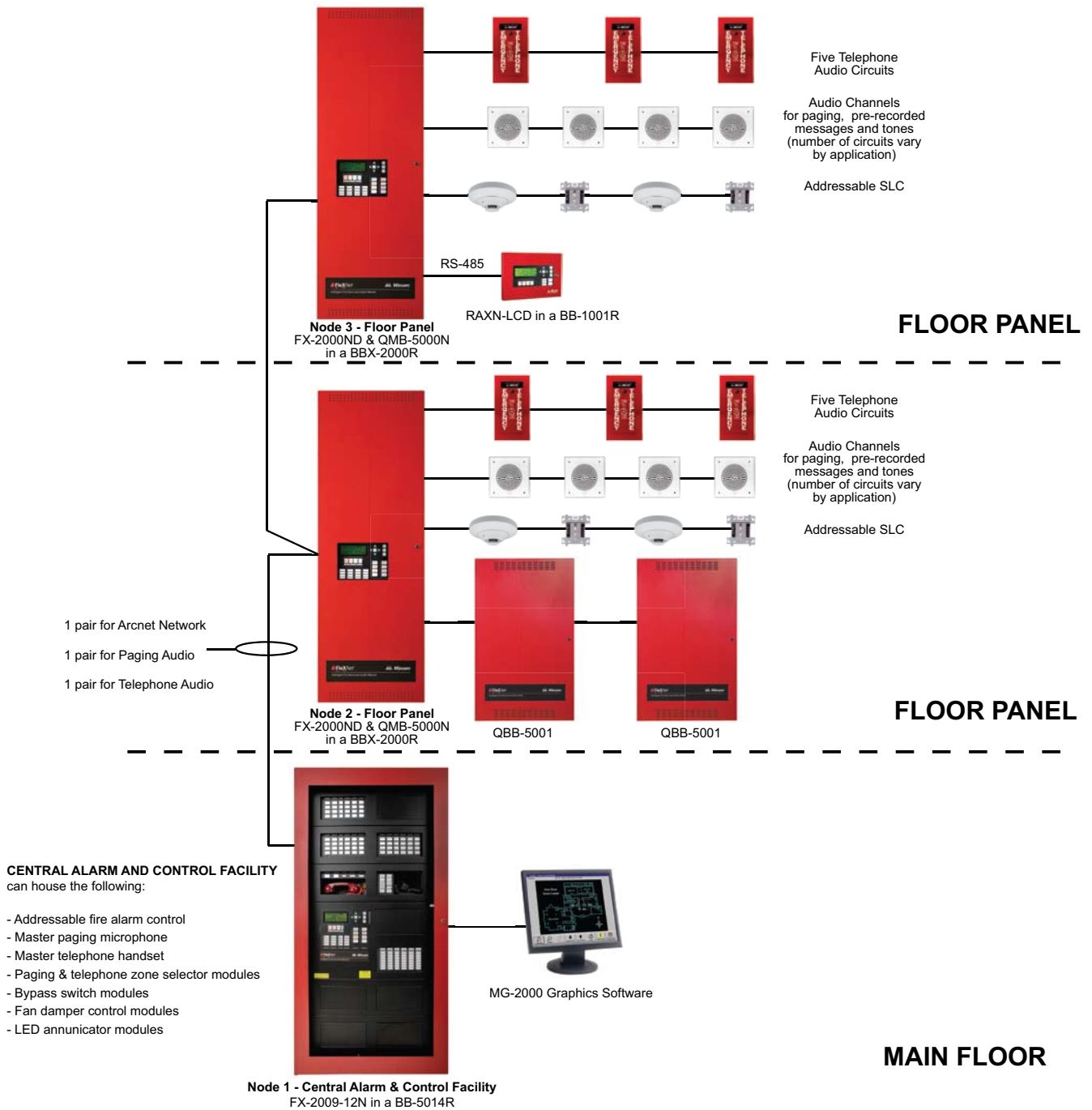
## QAA-5160-70/25 Wiring Diagram



## QAA-4CLA and QAA-4CLAS Connection Diagram



# Typical FleX-Net™ Networked System Configuration with Audio



## Ordering Information

Model	Description
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### FleX-Net™ Network Lobby Control and Floor Panels - Integrated Fire and Audio Systems

FX-2009-12N	Large Network Main Chassis. Mounts in the BB-5000 series enclosures.
ECX-0012	Expander Chassis for the FX-2009-12N. Mounts in the BB-5000 series enclosures.
FX-2000ND	Integrated Fire Alarm Network Control Chassis
QMB-5000N	Integrated Audio Network Control Chassis
PS-2040	Network Fire Alarm and Audio Power Supply

### Enclosures

BB-5008	Lobby Control Wallbox Enclosure. Supports 8 Module Footprints.
DOX-5008M	White Metal Door for BB-5008. Add suffix 'R' for red enclosure.
CCH-5008	Custom Mounting Kit for BB-5008. One required per BB-5008.
BB-5014	Lobby Control Wallbox Enclosure. Supports 14 Module Footprints.
DOX-5014M	White Metal Door for BB-5014. Add suffix 'R' for red enclosure.
CCH-5014	Custom Mounting Kit for BB-5014. One required per BB-5014.
BBX-2000	Enclosure for FX-2000ND, QMB-5000N and PS-2040. Add suffix 'R' for red enclosure.

### Adder Loop Controller Modules

ALCN-396S	Network Dual Loop Loop Controller Module (198 Analog Sensors and 198 Addressable Modules)
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### Adder Hardwire Modules

DM-1008A	Eight Class B (Style B) or 4 Class A (Style D) Initiating Circuit Module
SGM-1004A	Four Class A/B (Style Z/Y) Indicating Circuit Module (Rated at 1.7 Amps per circuit)
RM-1008A	Eight Relay Circuit Module c/w eight form C relays (Rated for 28 VDC @ 1 Amp max. per relay)

### Adder Auxiliary Modules

UDACT-300A	Digital Alarm Communicator Transmitter/Dialer Module
PR-300	Polarity Reversal and City Tie Module

### Programmable Modules

IPS-2424	Programmable Input Switches Module c/w 24 selector switches and 24 bi-coloured LEDs
FDX-008	Fan Damper Control Module c/w 8 programmable switches

### Remote Annunciators

RAXN-LCD	Remote Network LCD Annunciator
RAX-1048TZ	Adder Annunciator Chassis c/w 48 Bi-Coloured LEDs

### Graphic Annunciator Driver Modules

AGD-048	Adder Graphic Driver Module c/w 48 Supervised Outputs
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### Network Controller Modules

FNC-2000	Fire Network Controller Module
FOM-2000-SP	Fiber Optic Network Adder Module
ANC-5000	Audio Network Controller Module
TNC-5000	Telephone Network Controller Module

### Audio Amplifiers

QAA-5415-70	70 Volt Quad 15 Watt Amplifier
QAA-5415-25	25 Volt Quad 15 Watt Amplifier
QAA-4CLA	Class 'A' (Style 'Z') Converter Module for QAA-5415-25 and QAA-5415-70 Amplifiers
QAA-5230S-70/25	25 or 70 Volt Dual 30 Watt Amplifier split 'A' 'B' circuits per floor
QAA-4CLAS	Class 'A' (Style 'Z') Converter Module for QAA-5230S-70/25 and QAA-5230S-525-70/25 Amplifiers
QAA-5230-70/25	25 or 70 Volt Dual 30 Watt Amplifier
QAA-5160-70/25	25 or 70 Volt 60 Watt Amplifier

### Paging and Telephone Control Modules

QMP-5101N	Master Network Paging Control Module
QAMT-5302	Master Network Telephone Control Module
QAZT-5302	Paging and Telephone Selector Panel

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#### Canada

25 Interchange Way  
Vaughan, Ontario L4K 5W3  
Telephone: (905) 660-4655  
Fax: (905) 660-4113

#### U.S.A.

4575 Witmer Industrial Estates  
Niagara Falls, NY 14305  
Toll Free: (888) 660-4655  
Fax Toll Free: (888) 660-4113

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