

ATEIS®



IDA8C

NETWORKABLE PAVA SYSTEM CONTROLLER - MATRIX MODE



IDA8 is a third-generation modular system that complies with current architectural demands requiring IP and/or fibre optic networking to allow for even the most complex of system designs. IDA8C responds to Public Address and Voice Alarm requirements as stated in EN54-16, UL60065, ISO 7240-16 and BS5839/8, with specific attributes for compliance in large installations.

CONNECTIVITY

The IDA8C Controller unit houses advanced audio digital signal processing (DSP), matrix control functions and a digital message player, with front panel access for a fully monitored fireman's microphone and emergency message trigger buttons. IDA8C also supports amplifier monitoring with hot-swap amplifiers and loudspeaker line impedance monitoring. It can support up to four PSS-AS monitored microphone consoles and up to eight monitored amplifiers plus two back-up amplifiers, paging into 8 different zones per unit with A/B line detection according to BS 5839 part 8. Featuring 8 monitored zones for 25V/70V/100V outputs with simultaneous selection, control inputs, and contact outputs. IDA8C provides the zones and audio in & out expansion of the IDA8 systems, using a secured 48-channel audio and data network over CAT5 or fibre optic, which can be a network of one controller and a maximum up to 31 Slave units via ATEIS local-net, providing with 256 paging zones with priorities (1-99), satisfying with the most complex public address and voice alarm requirements. Two card slots are provided for either 4-channel 0dB audio input or 4-channel audio output cards. Optional AES/EBU cards are also available.

Each IDA8C input and output channel is fitted with a wide range of pre-and post-processing devices such as volume controllers, routing mixers and switches, priority and paging components, equalizers, compressors, limiters and delay-lines. Digital messaging (G.711, G.722, G.726, G.727 and WAV format) can be stored for live or pre-recorded playback. Digital audio files are uploaded from a computer to the IDA8C through the user-friendly ATEIS Studio GUI. Several messages can be played simultaneously into different zones: up to 4 messages from a single IDA8C Controller or a total of 48 messages across an IDA8 system (controller with slaves). A built-in loudspeaker on the IDA8C allows selective feedback for all sources and 100V output signals. One IDA8C can also connect to a maximum up to 31 Slave units. The slave units are available as single zone (IDA8S) or with A/B speaker line configurations (IDA8SAB), or for Lo-Z monitoring (IDA8SL).

The IDA8C Controller unit enables operators to see a detailed overview of the operational status of the entire PA system at the press of a button. It is able to run an impedance scan of all components connected to it, covering not only the input paging consoles but also cabling, processing blocks such as compressors and limiters, delay lines, the network and loudspeakers.

The IDA8C Controller operates either on 110VAC or 230VAC mains power supply or on a 24V battery power supply for emergency back-up, with automatic switch-over. Both power supplies are securely monitored. IDA8C is easily configured using the PC-based ATEIS Studio global software. Once programmed, the system will operate independently (off-line) without a PC having to be connected.

MAIN CHARACTERISTICS

- ▶ Support a maximum up to 31 slave units in ATEIS Local-Net
- ▶ Up to 256 zones provision via ATEIS Local-Net
- ▶ Up to 8000 zones provision via ATEIS Global-Net
- ▶ Fully digital with 8 audio inputs and 8 audio outputs
- ▶ 4 dedicated and monitored PDC-ports for paging consoles
- ▶ 2 dedicated audio in and outputs for back-up amplifiers
- ▶ Enhanced loudspeaker line surveillance for AB zoned installation
- ▶ Simultaneous control and routing of 48 audio channels over dedicated network
- ▶ 24bit, 48k sampling digital A/D converter, 32bit DSP
- ▶ Each of the 8 zones offers 1000W (MAX.)
- ▶ 25 / 70 / 100V selectable outputs
- ▶ Up to 100m by using CAT-5 cable with NET-C1
- ▶ Optional Fiber-optic cards for links up to 20 km
- ▶ 9 supervised control inputs and 8 control outputs
- ▶ Modbus Protocol interface via TCP/IP or RS485.
- ▶ Digital storage for up to 100 minutes in WAV format (16k 16 bit) or 400 minutes in G.722 format of pre-recorded messages
- ▶ 4 message players
- ▶ Programmable Message Scheduler Events
- ▶ DSP functions of PEQ, GEQ, Delays, Ducker, Gate, AGC, feedback, filter, inverter, local echo suppressor, mixer
- ▶ Ethernet interface for TERRACOM, 3rd party devices, configuration, control, diagnostics and logging
- ▶ Incident data record with at least 2047 entries
- ▶ Programmable of 4 user levels
- ▶ Telephone interface via SIP protocol or telephone line services
- ▶ 1 Fault & 1 EVAC relays outputs
- ▶ Programmable 256 priority paging zones with priority (1-99)
- ▶ 2U standard 19" rack mounting
- ▶ Export the incident log

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IDA8C

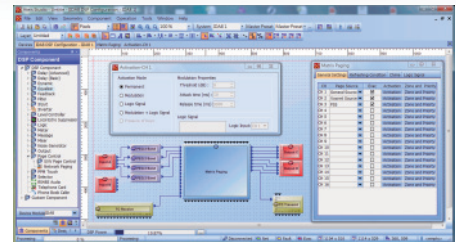
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SECURITY

In accordance with EN54-16, UL60065, ISO 7240-16 and BS5839/8, all IDA8 system components and peripherals are monitored. This monitoring extends from the capsule of a paging station microphone to the end of a loudspeaker line. The external cables connected to the control inputs are monitored for short and open circuit and an internally-generated pilot tone is available for monitoring impedance on the loudspeaker lines.

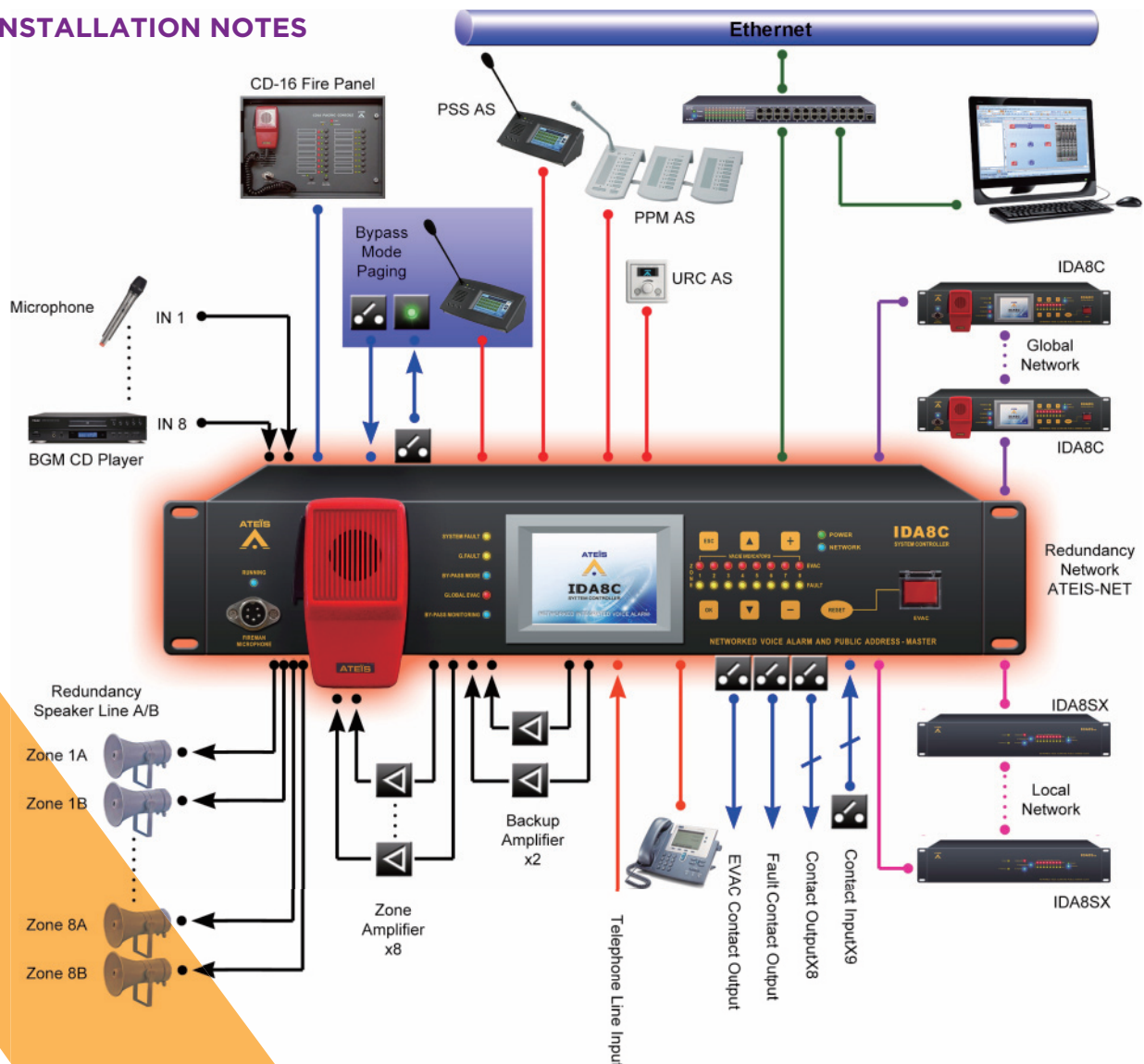
The system can handle 256 paging zones with priority(1-99), satisfying the most complex public address and voice alarm requirements. The controller monitors the status of all the equipment in the system, reports status changes and logs the last 2047 fault messages in the system. The log can be accessed on the front-panel IDA8C display or on a PC through ATEIS Studio.

ATEIS STUDIO



Design Software For IDA8

INSTALLATION NOTES



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CONTROLS AND INDICATORS

Front

3.5" full color touch-screen LCD display
EVAC / Zone selection buttons
Fireman microphone
Status indicators (Power / Network / Bypass)
Monitoring / G. EVAC / G. Fault

INTERCONNECTIONS

Front

Firemen microphone

Rear

AC power socket
24VDC backup power input
Fault/EVAC/BYPASS output
9 control inputs
8 control outputs
8 analogue audio mic/line inputs/outputs (Optional)
Ethernet (100BASE-TX)
Local / Global Network Card (Optional)
8 amplifier in and outputs
2 connections for backup amplifiers

PARTS INCLUDED

Quantities	Components
1	IDA8Cxx Controller unit
1	Power cord (type depends on region)
1	Set of mounting brackets for 19" rack
1	Set of connectors
1	ATEIS Studio software GUI
1	LAN Cable

TECHNICAL SPECIFICATIONS

ELECTRICAL

Mains power supply

Voltage	230/115VAC \pm 15%, 50/60Hz
Power consumption	48W

Battery power supply

Voltage	18 - 30VDC
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PERFORMANCE

Frequency response	\pm 1dB @ 20Hz to 20kHz
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Line inputs (Optional audio input card)

Connector	3-pin phoenix
Frequency response	\pm 1dB @ 20Hz to 20kHz
SNR	>81dBA
THD	< 0.02% @ 1kHz
Input sensitivity	0-66dBu / 6dB steps
Input impedance	10kohm

Line outputs Optional audio output card)

Connector	3-pin phoenix
SNR	>81dBa
THD	<0.02% @ 1kHz
Signal	0dB
Output impedance	<100ohm

Amplifier lines in 1 x 100V (per channel)

Max rated output power	1000W (cont. at 40°C)
Frequency response	\pm 3dB @ 50Hz to 18kHz
Input level	16dBu

Loudspeaker lines out 2 per channel (A & B)

Rated output power	1000W (cont. at 40°C)
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MECHANICAL

Dimensions (With 19" rack mount brackets)

(H x W x D)	2RU, 88 x 486 x 313mm (3.5" x 19" x 12-1/3")
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Weight	5.36kg (11.8lbs)
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Mounting	19"-rack mount
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Color	RAL7016
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ENVIRONMENTAL

Operating temperature	-5°C - 55°C (23°F - 131°F)
Storage temperature	-40°C - 70°C (-40°F - 158°F)
Relative humidity	15% to 90%
Air pressure	600 to 1100hPa

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