

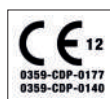


Public Address - Voice Alarm

Audio Distribution over IP

Commercial Audio

Loudspeakers



# IDA8

## Highly Integrated Secure PA/VA Network System

DELIVERING YOUR MESSAGE



## DELIVERING YOUR MESSAGE

ATEIS which boasts 30-years of experience in the research and development of Public Address and Voice Evacuation Systems now introduces a new system that perfectly integrates Fire-Alarm with Voice-Alarm according to EN 54-16(VACIE&FACIE), BS 5839-Part 8 and ISO 7240-16, compliance for large installations and installations with specific purpose.

IDA8 Digital Public Address and Voice Alarm series is a 3rd generation modular system that complies with current architectural demands that required IP-and/or Fiber-optics Networking to cover for any complex design possible.

ATEIS has developed and will continue developing dedicated system for Digital Public Address and Voice-Alarm applications.

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Public Address  
Voice Alarm



- Public Address - Voice Alarm
- Audio Distribution over IP
- Commercial Audio
- Loudspeakers

IDA8C  
Networkable PA/VA System  
Controller – Matrix Mode




# IDA8 System



IDA8C-SW  
Networkable PA/VA System  
Controller – Switch Mode



IDA8 is a third-generation modular system that complies with current architectural demands requiring IP and/or fiber-optic networking to allow for even the most complex of system designs.

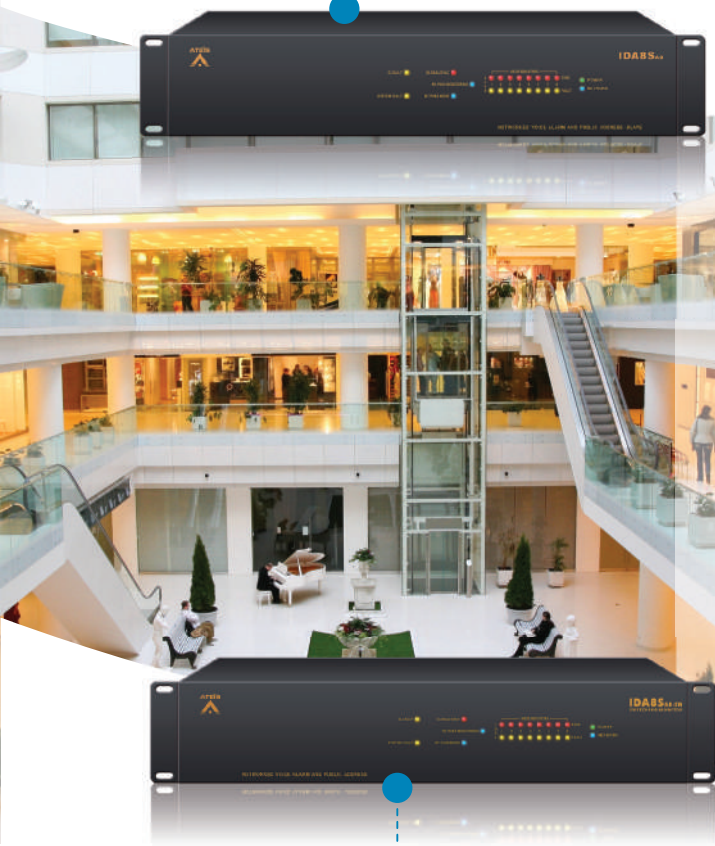
IDA8 responds to Public Address and Voice Alarm requirements as stated in EN54-16, ISO 7240-16, UL60065 and BS5839/8, with specific attributes for compliance in large installations.



IDA8SAB  
Networkable PA/VA System  
Slave Unit – A/B-zoning – Matrix Mode



IDA8S  
Networkable PA/VA System  
Slave Unit – Matrix Mode



IDA8SAB - SW  
Networkable PA/VA System  
Slave Unit – Switch Mode



IDA8SL  
Networkable PA/VA System  
Lo-Z Slave Unit – Matrix Mode

## IDA8C

## NETWORKABLE PA/VA SYSTEM CONTROLLER – MATRIX MODE



## 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 8192 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 800 entries (max. 1300)
- 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
- EN54-16 certified, UL listed
- To cooperate with RU devices to do redundancy, external power is requested

IDA8 is a third-generation modular system that complies with current architectural demands requiring IP and/or fiber-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 fiber 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 cards. Optional AES/EBU cards are also available.

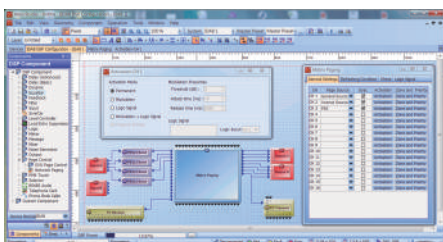
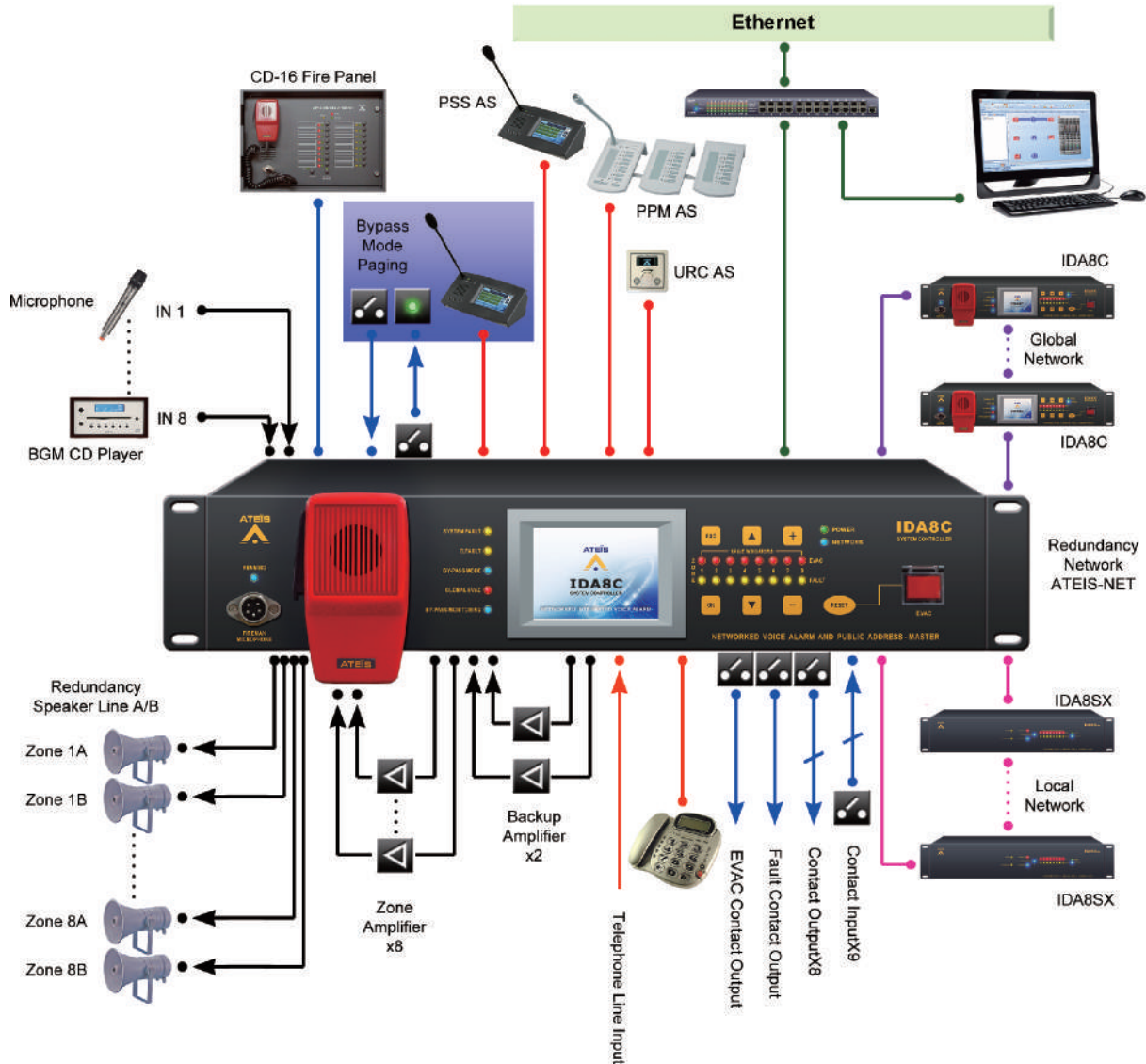
Each IDA8C input and output channel is fitted with a wide range of pre-and post-processing devices such as volume controllers, routing mixers and switches, priority and paging components, equalizers, compressors, limiters and delay-lines. Digital messaging (G.711, G.722, G.726, G.727 and WAV format) 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.

## IDA8C

### INSTALLATION NOTES



**ATEIS STUDIO**  
 Design Software For IDA8

#### 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 with 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 1300 fault messages in the system. The log can be accessed on the front-panel IDA8C display or on a PC through ATEIS Studio.

# IDA8 system

## IDA8C

### NETWORKABLE PA/VA SYSTEM CONTROLLER – MATRIX MODE

#### CONTROLS AND INDICATORS

##### Front

- 3.5" full color touch-screen LCD display
- EVAC / Zone selection buttons
- Fireman microphone
- Status indicators (Power / Network / System Fault / G.Fault / By-Pass Mode / Global Evac / By-pass Monitoring / Fireman microphone running / Zone Fault / Zone Evac Status)

#### 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
- 4 monitored paging console inputs
- Telephone Card (Optional)

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
	Railway Controller System	EN50121 – 4
USA	Safety	UL60065

#### PARTS INCLUDED

Quantities	Components
1	IDA8Cxx Controller unit
1	Fireman microphone
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	230/115 VAC ±15%, 50/60 Hz
Power consumption	48 W
Fuse Rating	1.6 A

##### Battery power supply

Voltage	18 - 30 VDC
Amp Consumption	1.4 A

##### Performance

Frequency response	±1 dB @ 20 Hz and 20 kHz
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##### Line inputs

(Optional audio input card)

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

##### Line outputs

(Optional audio output card)

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

##### Amplifier Capacity (per zone)

Input	1000 W (MAX.)
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##### Monitoring Loudspeaker

Input	1 < 50 Ohm (Display SHORT)
	50~5000 Ohm (Display Impedance value)
	1 > 5000 Ohm (Display OPEN)

##### Mechanical

Dimensions (With 19" rack mount brackets)

(H x W x D)	2RU, 88 x 486 x 313 mm (3.5" x 19" x 12-1/3")
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Weight	5.36 kg (11.8 lbs)
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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 1100 h Pa
Heat Dissipation	153 BTU/hr



## IDA8S

### NETWORKABLE PA/VA SYSTEM – SLAVE UNIT – MATRIX MODE

IDA8 is a third-generation modular system that complies with current architectural demands requiring IP and/or fiber-optic networking to allow for even the most complex of system designs. IDA8S responds to Public Address and Voice Alarm requirements as stated in EN54-16, ISO 7240-16 and BS5839/8, with specific attributes for compliance in large installations.



#### CONNECTIVITY:

The IDA8S Slave unit houses advanced audio digital signal processing (DSP), matrix control functions and a digital message player, along with amplifier monitoring for hot-swap amplifiers and loudspeaker line impedance monitoring. It can support up to two PSS-AS monitored microphone consoles and up to eight monitored amplifiers plus two backup amplifiers, paging into 8 different zones per unit with line detection. 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 fiber optic, which can be a network of one controller and a maximum up to 31 Slave units via ATEIS local-net. Two card slots can be fitted with optional 4-channel analogue audio input/outputs cards (max two cards per device).

IDA8S Slave units provide extension of IDA8 system configuration with an additional 8 output zones and 2 back-up amplifiers. Each 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 IDA8S through the user-friendly ATEIS Studio GUI. Several messages can be played simultaneously into different zones: up to 4 messages from a single IDA8S Slave or a total of 48 message channels across an IDA8 system (controller with slaves).

The IDA8S Slave operates on a 24VDC power supply. The power supplies are monitored. The IDA8S Slave also supports redundant loop network cabling. IDA8S 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.

#### SECURITY:

In accordance with EN54-16, 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 internal, generated pilot tone is available for monitoring impedance on the loudspeaker lines. The system can handle up to 256 zones with 1~99 priorities, satisfying even 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 error details. The log can be accessed on the front-panel display of IDA8C or on a PC through ATEIS Studio.



#### MAIN CHARACTERISTICS

- Support a maximum up to 31 slave units in ATEIS Local-Net
- Up to 256 zones provision via ATEIS Local-Net
- Fully digital with 8 audio inputs and 8 audio outputs
- 2 dedicated and monitored PDC-ports for paging consoles
- 2 dedicated audio in and outputs for back-up amplifiers
- Enhanced loudspeaker line surveillance for each zone 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 RS485.
- Digital storage for up to 50 minutes in WAV format (16k 16 bit) or 200 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 800 entries (max. 1300)
- Programmable of 4 user levels
- 1 Fault & 1 EVAC relays outputs
- Programmable 256 priority paging zones with priority(1~99)
- Export the incident log
- 1U standard 19" rack mounting
- EN54-16 certified
- To cooperate with RU devices to do redundancy, external power is requested.

# IDA8 system

## IDA8S

### NETWORKABLE PA/VA SYSTEM – SLAVE UNIT – MATRIX MODE

#### CONTROLS AND INDICATORS

##### Front

- Status LEDs ( Network / Bypass Monitoring / Bypass Mode / G. EVAC / System Fault / G. Fault )
- Zone LEDs (EVAC / Fault )
- Power LEDs

#### INTERCONNECTIONS

##### Rear

- 24VDC mains power input
- Fault/EVAC/BYPASS output
- 9 control inputs
- 8 control outputs
- 8 analogue audio mic/line inputs/outputs (Optional)
- 2 Local ATEIS Network connections
- 8 amplifier in and outputs
- 2 connections for back-up amplifiers
- 2 monitored paging console inputs

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
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#### PARTS INCLUDED

Quantities	Components
1	IDA8Sxx Slave unit
1	110/220V AC to 24V DC power adapter
1	Set of mounting brackets for 19" rack
1	Set of connectors

#### TECHNICAL SPECIFICATIONS

##### Electrical

##### 24 VDC power supply

Voltage	18 - 30 VDC
Amp Consumption	1.4 A

##### Performance

Frequency response	±1 dB @ 20 Hz and 20 kHz
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##### Line inputs (Optional audio input card)

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

##### Line outputs (Optional audio output card)

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

##### Amplifier Capacity (per zone)

Input	1000 W (MAX.)
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##### Monitoring Loudspeaker

Input	1 < 50 Ohm (Display SHORT)
	50~5000 Ohm (Display Impedance value)
	1>5000 Ohm (Display OPEN)

##### Mechanical

##### Dimensions (With 19" rack mount brackets)

(H x W x D)	1RU, 44 x 486 x 285 mm (1-3/4" x 19" x 11-1/5")
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Weight	4.2 kg (9.25 lbs)
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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 1100 h Pa
Heat Dissipation	126 BTU/hr



## IDA8SAB

### NETWORKABLE PA/VA SYSTEM – SLAVE UNIT – A/B-ZONING – MATRIX MODE

IDA8 is a third-generation modular system that complies with current architectural demands requiring IP and/or fiber-optic networking to allow for even the most complex of system designs. IDA8SAB 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 IDA8SAB Slave unit houses advanced audio digital signal processing (DSP), matrix control functions and a digital message player, along with amplifier monitoring with hot-swap amplifiers and loudspeaker line-impedance line monitoring. It can support up to two PSS-AS monitored microphone consoles, up to eight monitored amplifiers plus two backup amplifiers and paging into 8 different zones per unit with A/B line detection according to the 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 fiber optic, which can be a network of one controller and a maximum up to 31 Slave units via ATEIS local-net. Two rear card slots can be fitted with optional 4-channel analogue audio in/output cards 4 channel AES/EBU cards for digital audio in/out.

IDA8SAB Slave units provides extension of IDA8 system configuration with an additional 8 output zones and 2 back-up amplifiers. Digital messaging can be stored in the unit for live or scheduled playback. Files are uploaded in G.711, G.722, G.726, G.727 and WAV format from a computer using the ATEIS Studio system GUI. Several messages can be played simultaneously into different zones: up to 4 from a single IDA8SAB or a total of 48 message channels across a full IDA8 system with slaves.

Each 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, com-pressers, limiters and delay-lines.

IDA8SAB is easily configured with PC-based ATEIS Studio global software. Once programmed, the system will run independently without a PC connected. The IDA8SAB Slave operates either on 110VAC or 230VAC mains power or on a 24V DC power supply for emergency back-up, with automatic switchover. Both of the power supplies are monitored.

#### SECURITY:

In accordance with EN54-16, UL60065, ISO 7240-16 and BS5839/8, all 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 internal, generated pilot tone is available for monitoring impedance on the loudspeaker lines. The IDA8SAB Slave supports redundant network cabling as a redundant loop. The system can handle up to 256 zones with priority(1~99), satisfying even the most complex public address and voice alarm requirements.

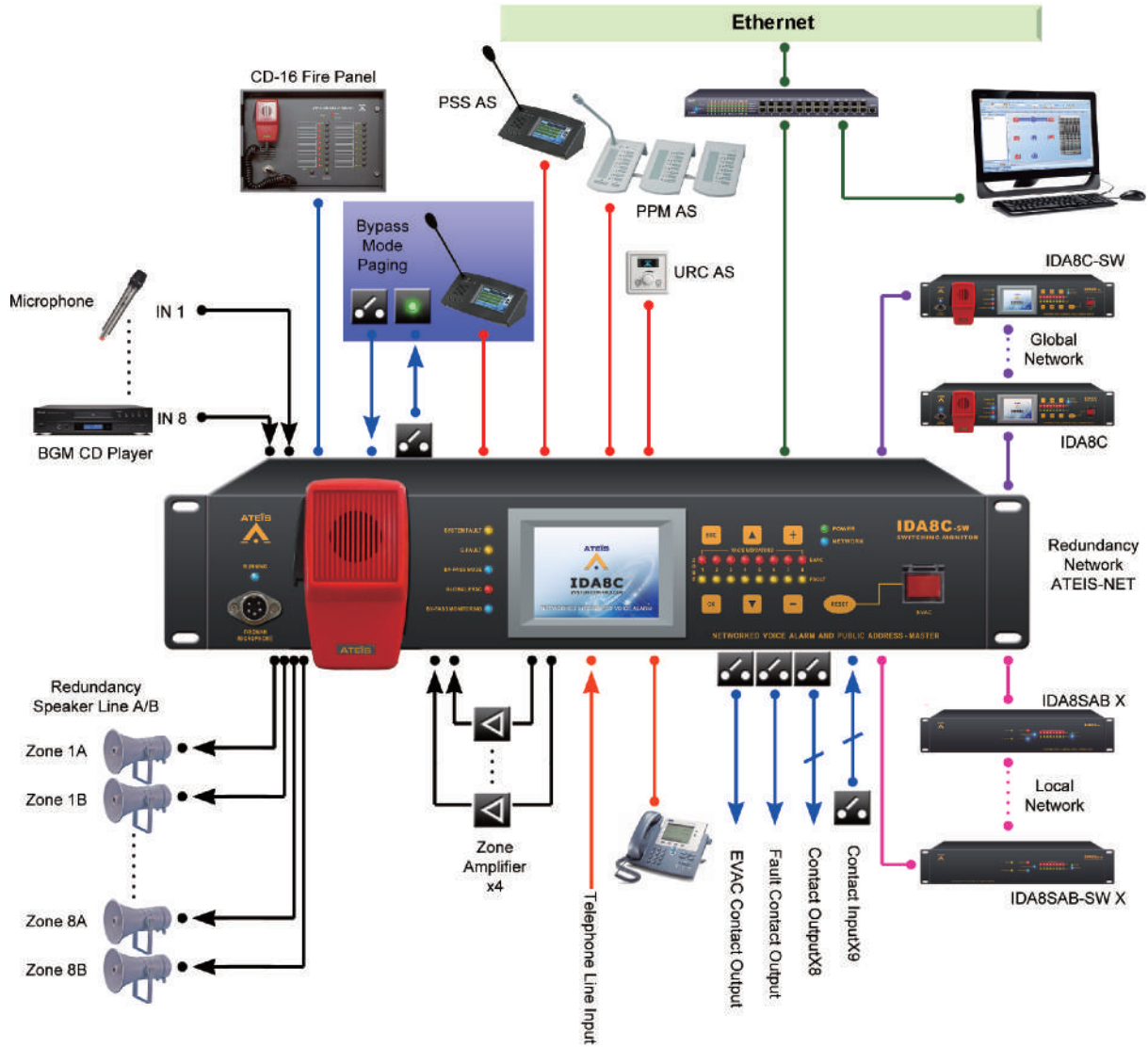


#### MAIN CHARACTERISTICS

- Support a maximum up to 31 slave units in ATEIS Local-Net
- Up to 256 zones provision via ATEIS Local-Net
- Fully digital with 8 audio inputs and 8 audio outputs
- 2 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 RS485.
- Digital storage for up to 50 minutes in WAV format (16k 16 bit) or 200 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 800 entries (max. 1300)
- 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)
- Export the incident log
- 2U standard 19" rack mounting
- EN54-16 certified, UL listed
- To cooperate with RU devices to do redundancy, external power is requested

## IDA8SAB

### INSTALLATION NOTES



# IDA8 system

## IDA8SAB

NETWORKABLE PA/VA SYSTEM – SLAVE UNIT – A/B-ZONING – MATRIX MODE

### CONTROLS AND INDICATORS

#### Front

- Status LEDs ( Network / Bypass Monitoring / Bypass Mode / G. EVAC / System Fault / G. Fault )
- Zone LEDs (EVAC / Fault )
- Power LEDs

### INTERCONNECTIONS

#### Rear

- AC power socket
- 24VDC backup power input
- BYPASS Mode output
- 9 control inputs
- 8 control outputs
- 8 analogue audio mic/line inputs/outputs (Optional)
- 2 Local ATEIS Network connections
- 8 amplifier in and outputs
- 2 connections for back-up amplifiers
- Telephone Card (Optional)
- 2 monitored paging console inputs

### CERTIFICATIONS AND APPROVALS

#### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
	Railway Controller System	EN50121 – 4
USA	Safety	UL60065



### PARTS INCLUDED

Quantities	Components
1	IDA8SABxx Slave unit
1	Power cord (type depends on region)
1	Set of mounting brackets for 19" rack
1	Set of connectors

### TECHNICAL SPECIFICATIONS

#### Electrical

##### Mains power supply

Voltage	230/115 VAC ±15%, 50/60 Hz
Power consumption	48 W
Fuse Rating	1.6 A

##### Battery power supply

Voltage	18 - 30 VDC
Amp Consumption	1.4 A

#### Performance

Frequency response	±1 dB @ 20 Hz and 20 kHz
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#### Line inputs

(Optional audio input card)

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

#### Line outputs

(Optional audio output card)

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

#### Amplifier Capacity (per zone)

Input	1000 W (MAX.)
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#### Monitoring Loudspeaker

Input	1< 50 Ohm (Display SHORT) 50~5000 Ohm (Display Impedance value) 1>5000 Ohm (Display OPEN)
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#### Mechanical

##### Dimensions (With 19" rack mount brackets)

(H x W x D)	2RU, 88 x 486 x 289 mm (3-1/2" x 19" x 11-3/8")
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Weight	5 kg (11 lbs)
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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 1100 h Pa
Heat Dissipation	140 BTU/hr

## IDA8SL

### NETWORKABLE PA/VA SYSTEM LO-Z SLAVE UNIT – MATRIX MODE



#### MAIN CHARACTERISTICS

- Support a maximum up to 31 slave units in ATEIS Local-Net
- Up to 256 zones provision via ATEIS Local-Net
- 2 dedicated and monitored PDC-ports for paging consoles
- 1 dedicated audio in/output for back-up amplifier
- Enhanced loudspeaker line surveillance for each zone installation
- Simultaneous control and routing of 48 audio channels over dedicated network
- 24bit, 48k sampling digital A/D converter, 32bit DSP
- Each of the 4 zones offers 1500W (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 RS485
- Digital storage for up to 50 minutes in WAV format (16k 16 bit) or 200 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 800 entries (max. 1300)
- Programmable of 4 user levels
- 1 Fault & 1 EVAC relays outputs
- Programmable 256 priority paging zones with priority(1~99)
- Export the incident log
- 2U standard 19" rack mounting
- UL listed
- To cooperate with RU devices to do redundancy, external power is requested

IDA8 is a third-generation modular system that complies with current architectural demands requiring IP and/or fiber-optic networking to allow for even the most complex of system designs. IDA8SL responds to Public Address and Voice Alarm requirements as stated in EN54-16(Pending), UL60065, ISO 7240-16 and BS5839/8, with specific attributes for compliance in large installations.



#### CONNECTIVITY:

The IDA8SL Lo-Z Slave unit houses advanced audio digital signal processing (DSP), matrix control functions and a digital message player, along with amplifier monitoring with hot-swap amplifiers and Lo-Z line monitoring. It can support up to two PSS-AS monitored microphone consoles, up to four monitored amplifiers plus one backup amplifier and paging into 4 different zones per unit with line detection. Each 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.

IDA8SL Slave units provides extension of IDA8 system configuration with an additional 4 output zones and 1 back-up amplifier. Digital messaging can be stored in the unit for live or scheduled playback. Files are uploaded in G.711, G.722, G.726, G.727 and WAV format from a computer using the ATEIS Studio system GUI. Several messages can be played simultaneously into different zones: up to 4 from a single IDA8SL or a total of 48 message channels across a full IDA8 system with slaves.

IDA8SL is easily configured with PC-based ATEIS Studio global software. Once programmed, the system will run independently without a PC connected. The IDA8SL-Slave operates either on 110VAC or 230VAC mains power or on a 24V DC power supply for emergency back-up, with automatic switchover. Both of the power supplies are monitored.

#### SECURITY:

In accordance with EN54-16(Pending), UL60065, ISO 7240-16 and BS5839/8, all 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 IDA8SL Slave supports redundant network cabling as a redundant loop. The system can handle up to 256 zones with 1~99 priorities, satisfying even the most complex public address and voice alarm requirements.

# IDA8 system

## IDA8SL

### NETWORKABLE PA/VA SYSTEM LO-Z SLAVE UNIT – MATRIX MODE

#### CONTROLS AND INDICATORS

##### Front

- Status LEDs ( Network / Bypass Monitoring / Bypass Mode / G. EVAC / System Fault / G. Fault )
- Zone LEDs (EVAC / Fault )
- Power LEDs

#### INTERCONNECTIONS

##### Rear

- AC power socket
- 24VDC backup power input
- BYPASS Mode output
- 9 control inputs
- 8 control outputs
- 2 Local ATEIS Network connections
- 4 low-impedance amplifier in and outputs
- 1 connection for back-up amplifiers
- 2 monitored paging console inputs

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Region	Category	Certification
Europe	Voice Alarm	EN54-16 certified(Pending)
		CE – 0359 according to EN50130 – 4
USA	Safety	UL60065

#### PARTS INCLUDED

Quantities	Components
1	IDA8SLxx Slave unit
1	Power cord (type depends on region)
1	Set of mounting brackets for 19" rack
1	Set of connectors

#### TECHNICAL SPECIFICATIONS

##### Electrical

###### Mains power supply

Voltage	230/115 VAC ±15%, 50/60 Hz
Power consumption	48 W
Fuse Rating	1.6 A

###### Battery power supply

Voltage	18 - 30 VDC
Amp Consumption	1.4 A

##### Performance

Frequency response	±1 dB @ 20 Hz and 20 kHz
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##### Line inputs

(Optional audio input card)

Connector	SPEAKON (electronically balanced)
Frequency response	±1 dB @ 20 Hz and 20 kHz
SNR	>81 dBA
THD	< 0.02% @ 1 kHz
Input sensitivity	0~66 dBu / 6dB steps
Input impedance	10 kohm

##### Line outputs

(Optional audio output card)

Connector	XLR
SNR	>81 dBA
THD	< 0.02% @ 1 kHz
Signal	0dB
Output impedance	<100 ohm

##### Amplifier Capacity (per zone)

Input	1500 W (MAX.)
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##### Monitoring Loudspeaker

Input	>0, <5000 Ohm (Display Impedance value) >5000 Ohm (Display OPEN)
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##### Mechanical

###### Dimensions (With 19" rack mount brackets)

(H x W x D)	2RU, 88 x 486 x 300 mm (3-1/2" x 19" x 11-4/5")
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Weight	4.2 kg (9.25 lbs)
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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 1100 h Pa
Heat Dissipation	140 BTU/hr



## IDA8C-SW

### NETWORKABLE PA/VA SYSTEM CONTROLLER – SWITCH MODE



IDA8C-SW supports up to 4 audio sources including Evac/ Voice/ Music/ Backup, utilizing with a maximum capacity of 1000 W for each and the choice of audio source can be selected from one source only for the systems. Featuring 8 monitored zones for 25V/70V/100V outputs with simultaneous selection, control inputs, and contact outputs. IDA8C-SW provides the zones and audio in & out expansion of the IDA8C-SW Systems, using a secured 48-channel audio and data network over CAT5 or fiber 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). Furthermore, IDA8C-SW is capable to expand up to 8192 zones via ATEIS global-net, satisfying with the most complex public address and voice alarm requirements.

The IDA8C-SW requires up to 4 channel amplifier and be capable to act as a backup amplifier in case other amplifiers break down. In case of evacuation, the zones attenuators will be bypassed automatically and signal output shall be activated when certain zone is occupied with a source that has a higher priority than the music alarm or voice paging. Two card slots are provided for either 4-channel 0dB audio input or 4-channel audio cards. Optional AES/EBU cards are also available.

IDA8C-SW Controller unit is capable to run an impedance scan of all the components, covering not only the input paging consoles but the cabling, and processing blocks such as compressors and limiters, delay lines, network and loudspeakers. Digital messaging (G.711, G.722, G.726, G.727 and WAV format) can be stored for live or pre-recorded playback. It stores a reference measurement of the system as users create a given configuration. This reference will be subsequently stored in the system. Any alterations of this configuration will be reported and logged in an event log file as well. The custom setting of threshold shall be applied in it, allowing users to meet each circumstances.

Password protecting to the software allows you to protect all recorded data file which shall be consulted both on the front LCD display panel and in the ATEIS-Studio global version software (Windows compatible) via the PC. Once programmed, the system enables to work independently(off-line) without the need of connecting to the PC. Also, any detected fault shall be signaled by a general fault on the front panel of IDA8C-SW Controller unit.

IDA8C-SW controller unit enhances the abilities to connect with the touch panel microphone consoles (PSS-AS) and programmable transfer contacts. As well as to support the system operation via PC, or 3rd party control such as Crestron or AMX and other control systems to meet users' demands.

### MAIN CHARACTERISTICS

- Support a maximum up to 31 slave units in ATEIS Local-Net
- Up to 8192 zones provision via ATEIS Global-Net
- Fully digital with 8 audio inputs and 8 audio outputs
- 4 x 1000 Watt maximum load
- 4 channel audio distribution for EVAC, Paging, BGM & Backup
- Combined back-up amplifier function
- 4 dedicated and monitored PDC-ports for paging consoles
- 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
- Up to 100m by using CAT-5 cable with NET-C1
- Optional Fiber-optic cards for links up to 20 km
- 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 800 entries (max. 1300)
- 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)
- Export the incident log
- 2U standard 19" rack mounting
- UL listed
- To cooperate with RU devices to do redundancy, external power is requested



# IDA8 system

## IDA8C-SW

### NETWORKABLE PA/VA SYSTEM CONTROLLER – SWITCH MODE

#### 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 in/out card
- 4 amplifier inputs and outputs
- 4 monitored paging console inputs
- BNC (Optional with AES-EBU)
- Telephone Card (Optional)

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified(Pending) CE – 0359 according to EN50130 – 4
USA	Safety	UL60065

#### PARTS INCLUDED

Quantities	Components
1	IDA8Cxx-SW Controller unit
1	Fireman microphone
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	230/115 VAC $\pm$ 15%, 50/60 Hz
Power consumption	48 W
Fuse Rating	1.6 A

##### Battery power supply

Voltage	18 - 30 VDC
Amp Consumption	1.4 A

##### Performance

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

Connector	3-pin phoenix
Frequency response	$\pm$ 1 dB @ 20 Hz and 20 kHz
SNR	>81 dBA
THD	< 0,02% @ 1 kHz
Input sensitivity	0~66 dBu / 6dB steps
Input impedance	10 kohm

##### Line outputs (Optional audio output card)

Connector	3-pin phoenix
SNR	>81 dBA
THD	< 0,02% @ 1 kHz
Signal	0dB
Output impedance	<100 ohm

##### Amplifier Capacity (per zone)

Input	1000 W (MAX.)
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##### Monitoring Loudspeaker

Input	1 < 50 Ohm (Display SHORT)
	50~5000 Ohm (Display Impedance value)
	1>5000 Ohm (Display OPEN)

##### Mechanical

##### Dimensions (With 19" rack mount brackets)

(H x W x D)	2RU, 88 x 483 x 305 mm (3-1/2" x 19" x 12")
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Weight	6.2 kg (13.65 lbs)
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Mounting	19"-rack mount
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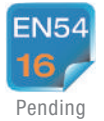
Color	RAL7016
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##### Environmental

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 1100 h Pa
Heat Dissipation	140 BTU/hr



## IDA8SAB-SW



### NETWORKABLE PA/VA SYSTEM – SLAVE UNIT – SWITCH MODE



#### MAIN CHARACTERISTICS

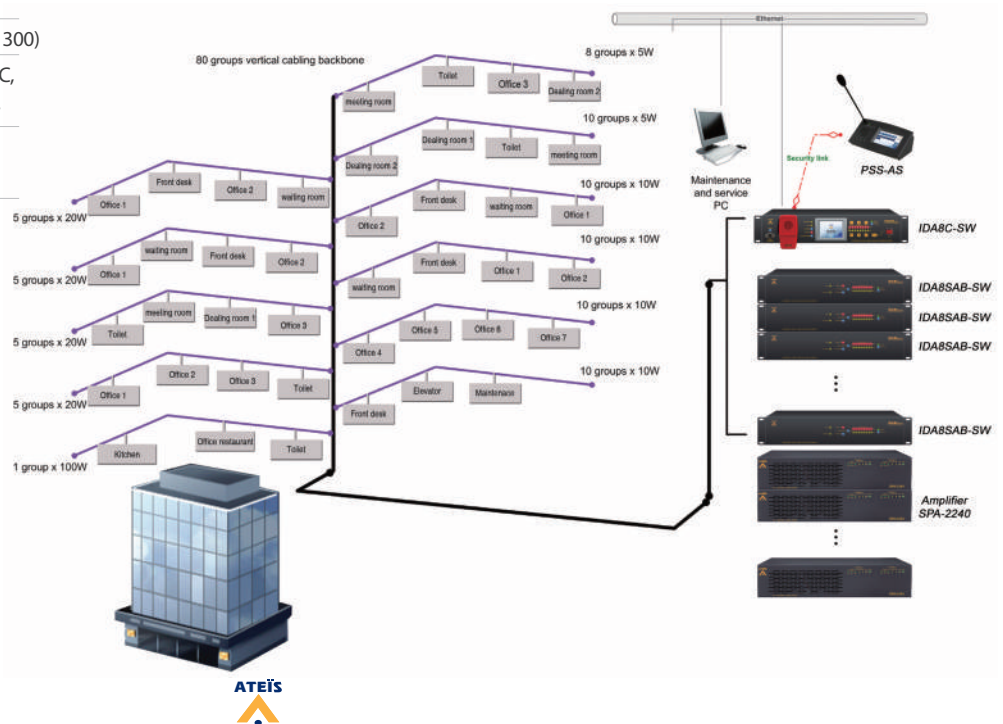
- Support a maximum up to 31 slave units in ATEIS Local-Net
- Up to 8192 zones provision via ATEIS Global-Net
- Fully digital with 8 audio inputs and 8 audio outputs
- 4 x 1000 Watt maximum load
- 4 channel audio distribution for EVAC, Paging, BGM & Backup
- Combined back-up amplifier function
- 2 dedicated and monitored PDC-ports for paging consoles
- 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
- Up to 100m by using CAT-5 cable with NET-C1
- Optional Fiber-optic cards for links up to 20 km
- Modbus Protocol interface via RS485.
- Digital storage for up to 50 minutes in WAV format (16k 16 bit) or 200 minutes in G.722 format of pre-recorded messages
- Incident data record with at least 800 entries (max. 1300)
- 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
- Programmable Message Scheduler Events
- 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)
- Export the incident log
- 2U standard 19" rack mounting
- UL listed
- To cooperate with RU devices to do redundancy, external power is requested

IDA8SAB (switch mode) supports up to 4 audio sources including Evac/ Voice/ Music/ Backup, utilizing with a maximum capacity of 1000 W for each and the choice of audio source can be selected from one source only for the systems. Featuring 8 monitored zones for 25V/70V/100V outputs with simultaneous selection, control inputs, and contact outputs. IDA8SAB (switch mode) provides the zones and audio in & out expansion of the IDA8 Systems, using a secured 48-channel audio and data network over CAT5 or fiber 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). Two rear card slots can be fitted with optional 4-channel analogue audio in/output cards 4 channel AES/EBU cards for digital audio in/out.

IDA8SAB (switch mode) requires less number of amplifiers with only 4 audio inputs / outputs (EVAC/ Voice/ Music/ Back up) from amplifier and be capable to act as a backup amplifier in case other amplifiers break down. Users shall manually route the signal and digital messages into the selected zones and adjust the audio level, switch the music (ON/OFF)...etc. In case of evacuation, the zones attenuators will be bypassed automatically and signal output shall be activated when certain zone is occupied with a source that has a higher priority than the music alarm or voice paging.

IDA8SAB (switch mode) slave unit is a user-friendly device which shall be configured via PC based on ATEIS Studio global version software (Windows compatible) and password protecting to the software allows you to protect your data. Once programmed, the system enables to work independently(off-line) without the need of connecting to a PC. Also, any detected fault shall be signaled by a general fault. IDA8SAB (switch mode) Controller enhances the abilities to connect with the touch panel microphone consoles (PSS-AS) and programmable transfer contacts as well as support to operate the system via PC, or 3rd party control such as Crestron or AMX and other control systems to meet the users' demands. Also any detected faults and alarm status are signaled by general fault and alarm output contacts. A local loudspeaker enables selective listening to all the sources and the system's output signals.

All these features make IDA8SAB (switch mode) the ideal system for shopping malls, hotels, restaurants, museums and many other public places.



# IDA8 system

## IDA8SAB- SW

### NETWORKABLE PA/VA SYSTEM – SLAVE UNIT – SWITCH MODE

#### CONTROLS AND INDICATORS

##### Front

- Status LEDs ( Network / Bypass Monitoring / Bypass Mode / G. EVAC / System Fault / G. Fault )
- Zone LEDs (EVAC / Fault )
- Power LEDs

#### INTERCONNECTIONS

##### Rear

- AC power socket
- 24VDC backup power input
- BYPASS Mode output
- 9 control inputs
- 8 control outputs
- 8 analogue audio mic/line inputs/outputs (Optional)
- 2 system LOCAL-network connections
- 4 amplifier inputs and outputs
- BNC (Optional with AES-EBU)
- Telephone Card (Optional)
- 2 monitored paging console inputs

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified(Pending) CE – 0359 according to EN50130 – 4
USA	Safety	UL60065

#### PARTS INCLUDED

Quantities	Components
1	IDA8SABxx-SW Controller unit
1	Power cord (type depends on region)
1	Set of mounting brackets for 19" rack
1	Set of connectors

#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Mains power supply

Voltage	230/115 VAC ±15%, 50/60 Hz
Power consumption	48 W
Fuse Rating	1.6 A

##### Battery power supply

Voltage	18 - 30 VDC
Amp Consumption	1.4 A

##### Performance

Frequency response	±1 dB @ 20 Hz and 20 kHz
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##### Line inputs

(Optional audio input card)

Connector	3-pin phoenix
Frequency response	±1 dB @ 20 Hz and 20 kHz

SNR	>81 dBA
THD	< 0,02% @ 1 kHz
Input sensitivity	0~66 dBu / 6dB steps
Input impedance	10 kohm

##### Line outputs

(Optional audio output card)

Connector	3-pin phoenix
SNR	>81 dBA
THD	< 0,02% @ 1 kHz
Signal	0dB
Output impedance	<100 ohm

##### Amplifier Capacity (per zone)

Input	1000 W (MAX.)
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##### Monitoring Loudspeaker

Input	1 < 50 Ohm (Display SHORT)
	50~5000 Ohm (Display Impedance value)
	1>5000 Ohm (Display OPEN)

##### Mechanical

Dimensions (With 19" rack mount brackets)

(H x W x D)	2RU, 88 x 483 x 305 mm
	3-1/2" x 19" x 12"

Weight	5.5 kg (12.1 lbs)
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Mounting	19"-rack mount
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Color	RAL7016
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##### Environmental

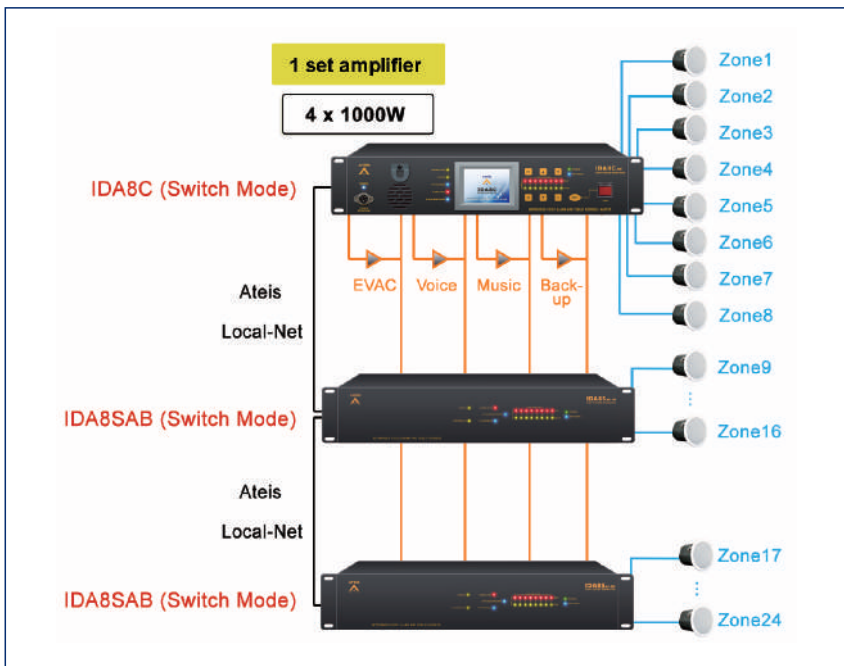
Operating temperature	-5°C ~ 55°C (23°F ~ 131°F)
Storage temperature	-40°C ~ 70°C (-40°F ~ 158°F)
Relative humidity	15% to 90%
Air pressure	600 to 1100 h Pa
Heat Dissipation	140 BTU/hr



## INSTALLATION EXAMPLES

IDA8C (Switch Mode) system requires and processes four 0 dB audio inputs into only a 4-channel amplifier (Evacuation, Voice, Music or Backup), each input is also fitted with volume controls and equalizers. The four channels can be switched ON/OFF in each zone separately. In case of Evacuation, the three channels can be used as a second alarm channel. There are three types of mode (**Equal Mode, Unequal Mode, Backup Sharing Mode**) which provide users with a multi-functional combination for preference.

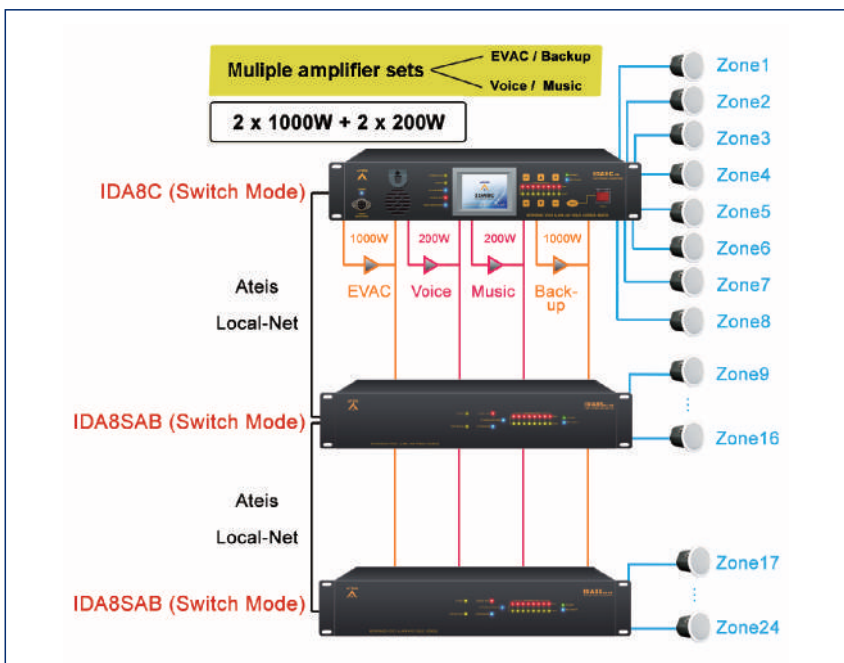
**Figure 1: Equal Mode Configuration**



### EQUAL MODE

In this example of Equal Mode, the master unit IDA8C (Switch Mode) is linked up with slave units IDA8SAB (Switch Mode) by Local ATEIS Local-Net and contains a secured paging facility with full power back-up. Each channel can handle up to 1000 W audio power at 100 V and be supplied not only for the master unit but also the slave units in each zone simultaneously. Furthermore, there are regular orders for priority backing-up system (EVAC > Voice > Music > Backup). For instance, when the EVAC and Voice amplifiers break down, the Backup and Music amplifier will automatically switch to EVAC and Voice amplifiers in order to provide and maintain the urgent operating paging.

**Figure 2: Unequal Mode Configuration**



### UNEQUAL MODE

In this example of Unequal Mode, the master unit IDA8C (Switch Mode) is linked up with slave units IDA8SAB (Switch Mode) by Local ATEIS Local-Net and contains a secured paging facility with full power back-up. It divides the four channels into two groups and the two channels in each group can be used for the other backup amplifier in case of amplifier failure. With ATEIS Studio software, providing the function of separating the two groups with different coverage from 1~99 of priority automatically.

Priority 1~20 sources shall be used by the EVAC and Backup channels; Priority 21~99 sources shall be used by the Voice and Music channels. In case you might face the possibility when the two amplifiers for Voice and Music sources are being occupied, the rest amplifiers for EVAC and Backup channels shall also be used as the Voice and Music sources simultaneously with one condition that there are other vacant amplifiers for EVAC and Backup.

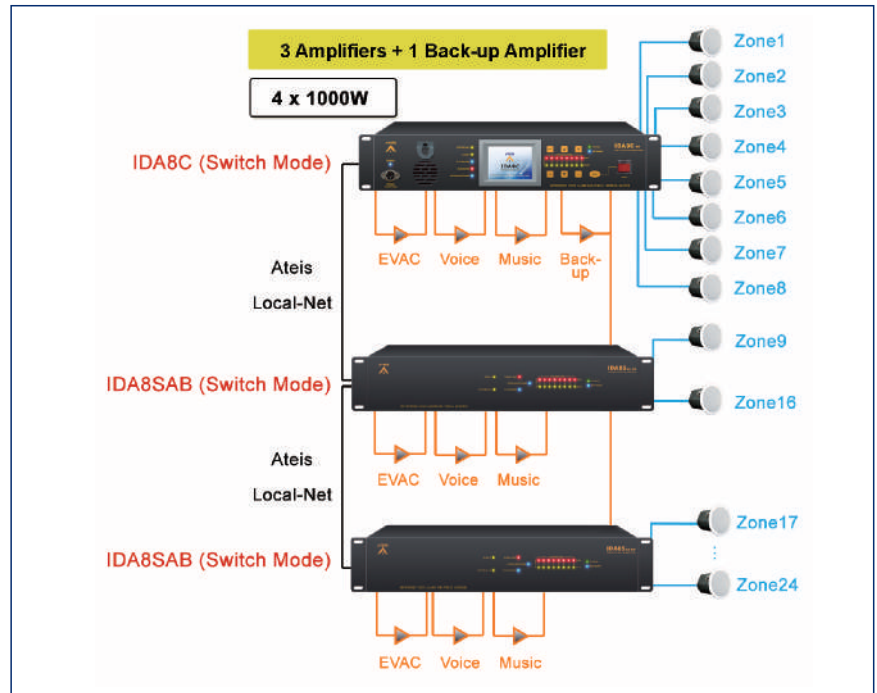
**Note:** Make sure the Watt unit of each group must be in the same power capacity.

## INSTALLATION EXAMPLES

**Figure 3: Backup Sharing Mode Configuration**

### BACKUP SHARING MODE

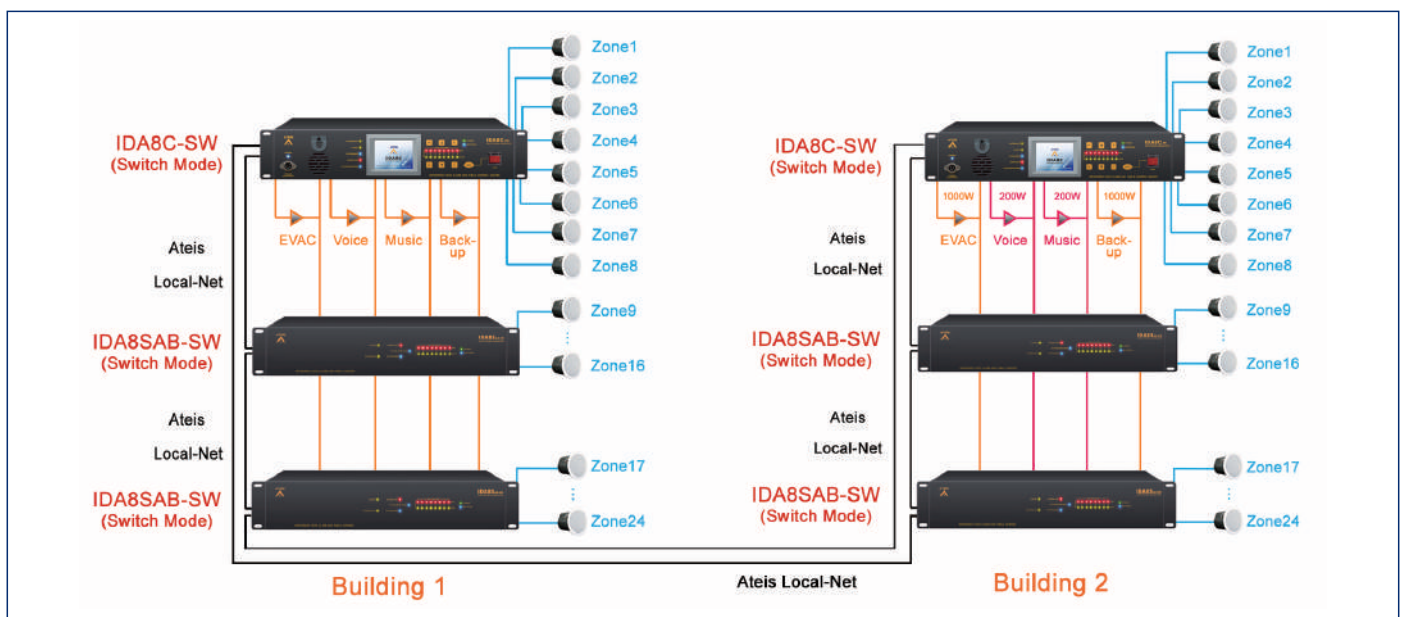
In this example of Backup Sharing Mode, the master unit IDA8C (Switch Mode) is linked up with slave units IDA8SAB (Switch Mode) by Local ATEIS Local-Net and contains a secured paging facility with full power back-up. The three amplifiers supply for each zone with one amplifier individually and the backup amplifier shall be a backup for the three amplifiers once they break down and switch on the power supply automatically.



### SCENARIOS

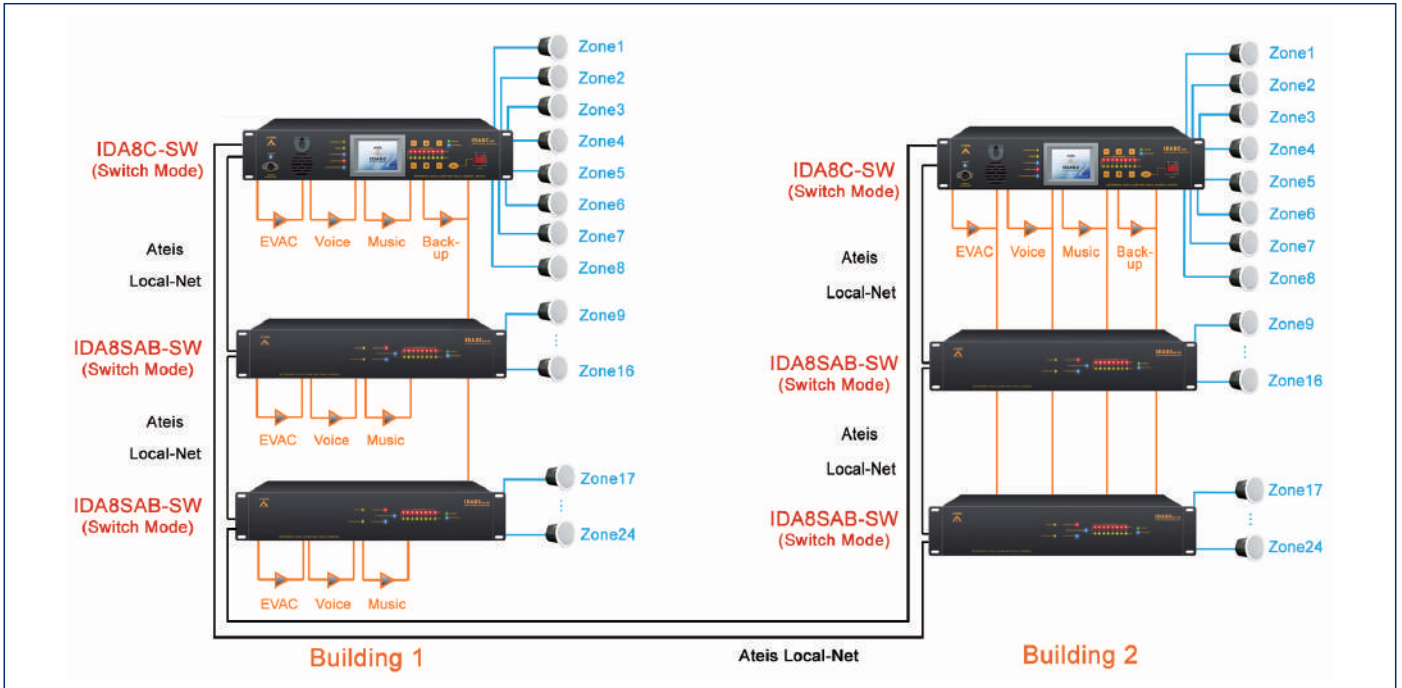
By the ATEIS local-Net which can be a network of one controller and a maximum up to 31 IDA8S/SL/SAB/SAB-SW Slave units in a local system, the system connects with ATEIS Local-Net shall be able to link up with each other in different kinds of mode(Equal, Unequal, Backup Sharing). The following pictures below would give users a better understanding of how to combine the multiple modes together in two or more buildings.

**Scenario 1: [Equal Mode + Unequal Mode]**

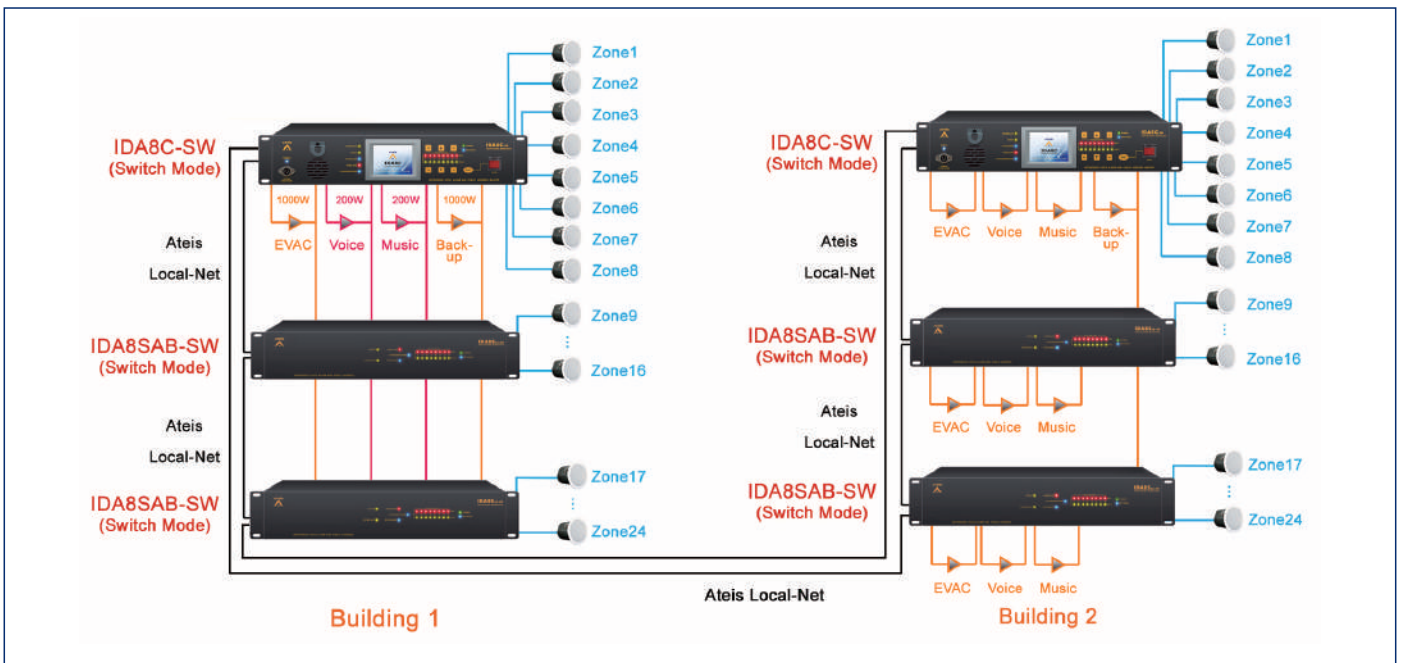


## INSTALLATION EXAMPLES

**Scenario 2: [Backup Sharing Mode + Equal Mode]**

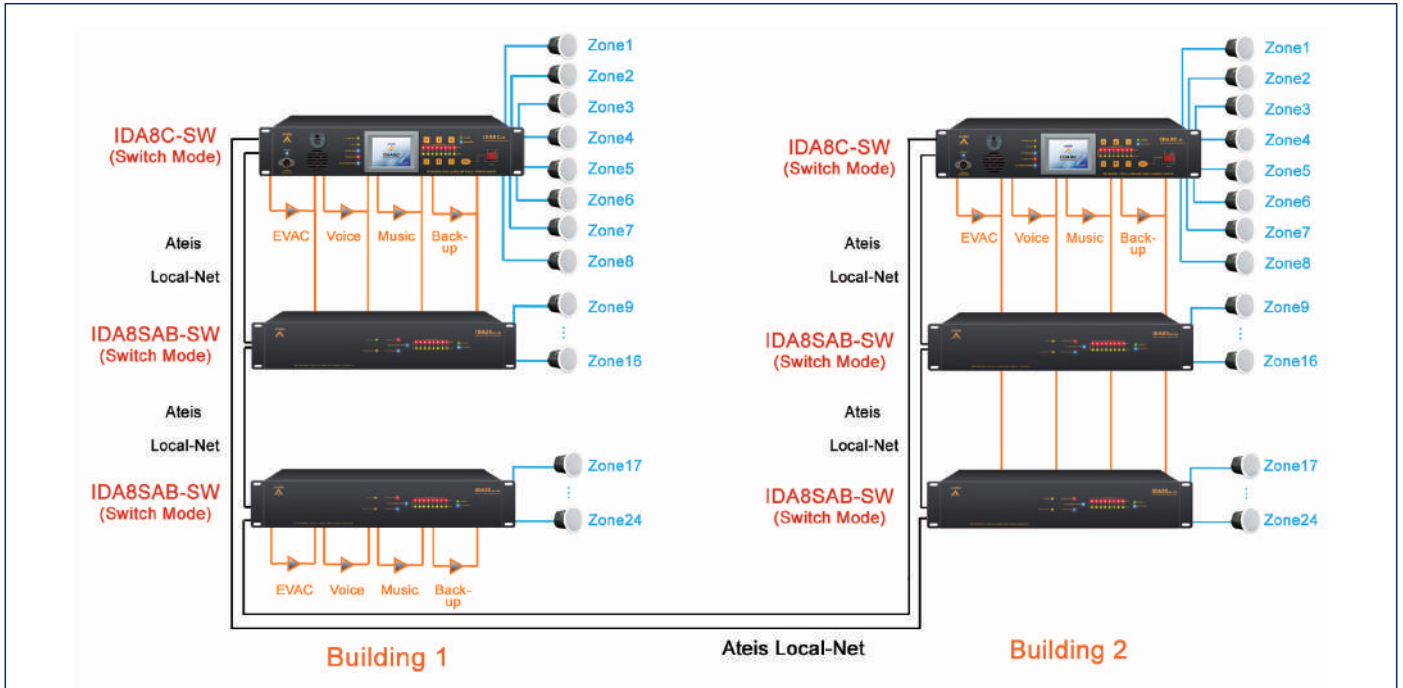


**Scenario 3: [Unequal Mode + Backup Sharing Mode]**

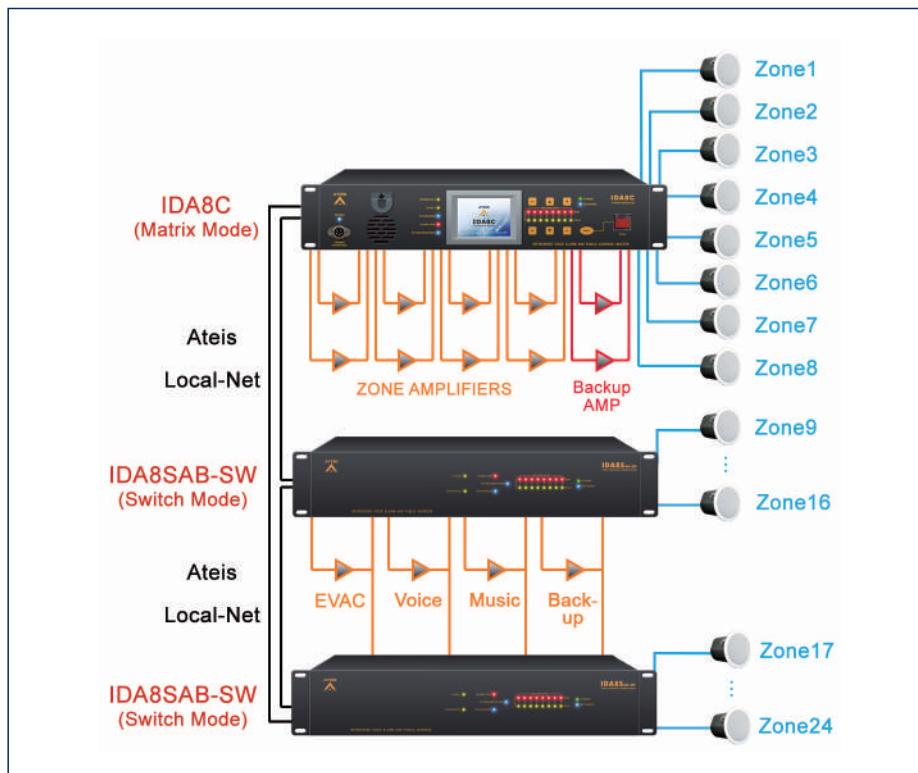


## INSTALLATION EXAMPLES

### Scenario 4: [Multiple wiring with 8 amplifiers + Equal Mode]

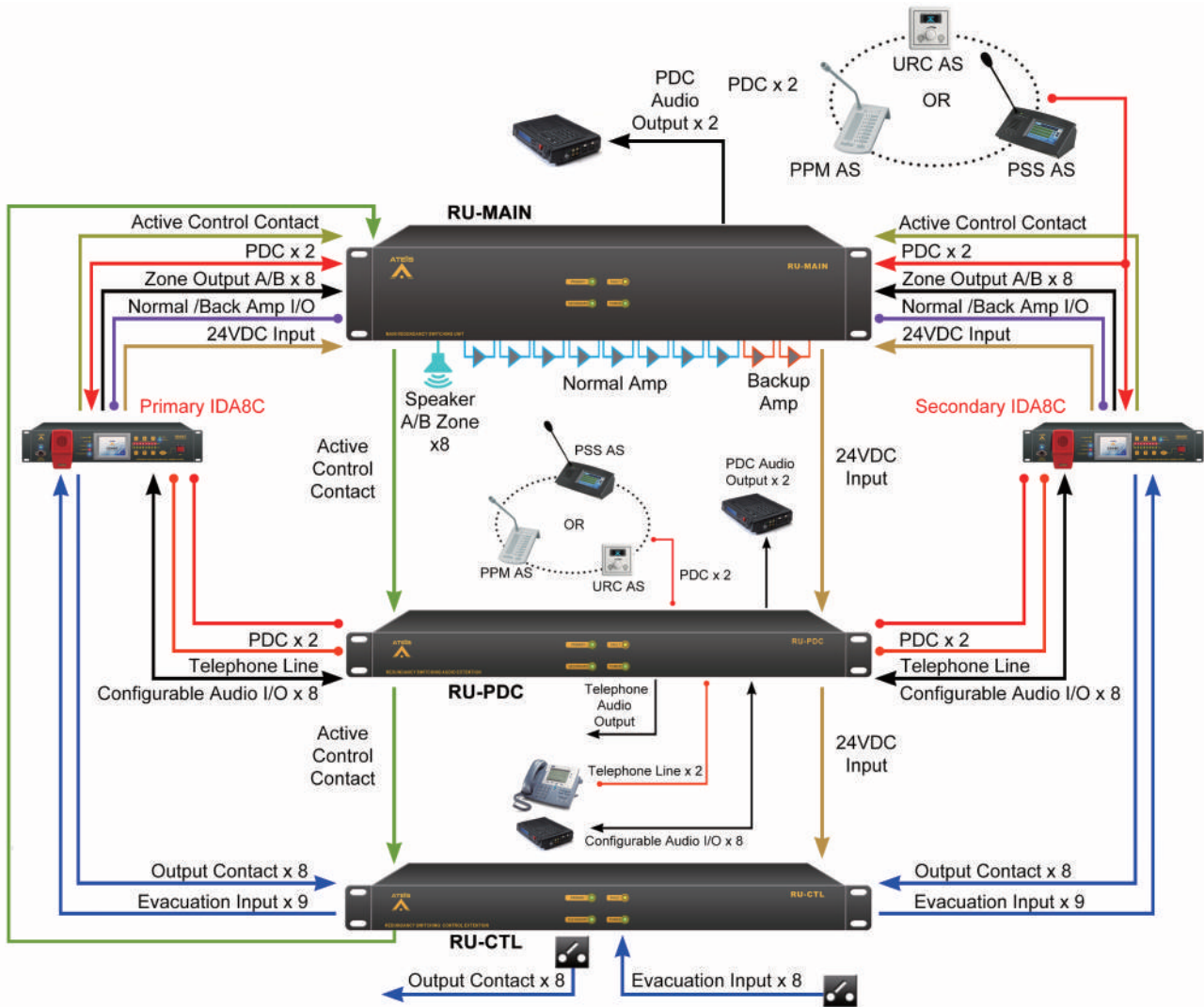


### Scenario 5: [ IDA8C ( Matrix Mode ) + IDA8C / IDA8SAB ( Switch Mode ) ]



## RU-MAIN / CTL / PDC

### IDA8 FULL-REDUNDANCY SWITCHING UNIT



In place of highly sensitive and secured integration such as nuclear power centrals, underground industrial systems or places where people have to thrust on a 100% availability of a PA/VA system may requires additional full-redundancy system. Redundancy is a very widely-spread application that needs to be further specified into a required level of redundancy. Compared to the higher levels of redundancy which requires for A/B wiring of the loudspeaker lines where loss of the A or B line or system still ensures a minimum coverage of 50% of the venue, spare amplifiers and surveillance of essential components in normal PA/VA systems aren't capable to support emergency cases. At this high level of redundancy, not only the amplifiers have redundancy by means of active spare amplifiers, but also the central equipment will provide a full back-up. And this is what we call: Full-Redundancy. ATEIS RU, the thorough switching devices, providing the high level of redundancy and acting as a Primary / Secondary switching device for IDA8C Controller and IDA8SAB Slave unit. Here are the three types of devices listed below,

**RU-Main:** Switching unit for digital audio processing with paging console interface.

**RU-CTL:** Switching unit for secured input and normal output contacts.

**RU-PDC:** Switching unit for auxiliary audio IN and OUT contacts with paging console & telephone line interface.

RU device is a device supplied with full-redundancy for audio processor. RU device is in charge of switching primary and secondary audio processor to active one of them. If primary audio processor is active, all signal of peripherals shall be redirected to the primary audio processor by RU device. RU device is also capable to monitor the status of audio processor. If primary audio processor breaks down, RU device will detect automatically and switch to secondary audio processor.



# IDA8 system

## RU-MAIN / CTL / PDC

### IDA8 FULL-REDUNDANCY SWITCHING UNIT

#### CONTROLS AND INDICATORS

##### Front

- Primary Active Indicator
- Secondary Active Indicator
- Fault Indicator
- Power Indicator

#### INTERCONNECTIONS

##### RU-MAIN

- 8 speaker lines, 8 amplifiers, 2 backup amps, 2 PSS inputs, 2 record Out
- Switching: Electrical mechanical relays
- Switching time: 6 seconds (IDA8 watchdog period)
- Connections: RJ 45, Screw terminals blocks
- LED display: power, Primary IDA8 system active, Secondary IDA8 system Active
- Control inputs: Primary IDA8 system watchdog, Secondary IDA8 system watchdog
- Control outputs: Primary IDA8 system active, Secondary IDA8 system Active, Expansion

##### RU-CTL

- 8 x Output contacts, 9 x alarm inputs
- Switching: Electrical mechanical relays
- Switching time: 6 seconds (IDA8 watchdog period)
- Connections: Screw terminals blocks
- LED display: power, Primary IDA8 system active, Secondary IDA8 system Active
- Control inputs: Primary IDA8 system watchdog, Secondary IDA8 system watchdog
- Control outputs: Primary IDA8 system active, Secondary IDA8 system Active, Expansion

##### RU-PDC

- 8 x 0dB inputs or outputs , 2 PSS inputs, 2 Tel inputs
- Switching: Electrical mechanical relays
- Switching time: 6 seconds (IDA8 watchdog period)
- Connections: RJ 45, Screw terminals blocks

- LED display: power, Primary IDA8 system active, Secondary IDA8 system Active
- Control inputs: Primary IDA8 system watchdog, Secondary IDA8 system watchdog
- Control outputs: Primary IDA8 system active, Secondary IDA8 system Active, Expansion

#### PARTS INCLUDED

Quantities	Components
1	RU-xx unit
1	Power cord (type depends on region)

#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Power supply

Voltage 24 VDC

##### Power consumption

RU-MAIN	600mA
RU-CTL	200mA
RU-PDC	350mA

##### Mechanical

Dimensions (With 19" rack mount brackets)

(H x W x D)

RU-MAIN	2RU, 88 x 436 x 150 mm (3-1/2" x 17-1/5" x 5-9/10")
RU-CTL/PDC	1RU, 44 x 436 x 150 mm (1-3/4" x 17-1/5" x 5-9/10")

##### Weight

RU-MAIN	4.5 kg (10 lbs)
RU-CTL/PDC	2.5 kg (5.5 lbs)

##### Mounting

19"-rack mount

##### Color

RAL7016

##### 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 1100 h Pa
Heat Dissipation	
RU-MAIN	50 BUT/hr
RU-CTL	16 BUT/hr
RU-PDC	28 BUT/hr



NET - CX

ATEIS NET SECURED AUDIO NETWORK CARD



ATEIS Net™ is a secured (monitored) audio network, developed and supplied for fast and low-latency audio and data transport over a redundant copper (CAT-5) or fiber-optic network ring. ATEIS Net™ has an open-architecture design and interfaces with remote devices such as paging consoles, audio break-in and break-out convertors and room controllers, providing the best solution to medium to large-scale installations, such as shopping malls, retail stores, train stations and airports.

ATEIS Net™ secured audio network 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.



MAIN CHARACTERISTICS

- ATEIS Net™ audio and data secured network
- Local-net & Global-net
- 32 x 32 IDA8 system units in a Global network
- Low-latency <1ms
- 48-audio channels
- Redundant loop architecture
- 32 bit, 48 kHz sampling
- CAT-5 for up to 100 m
- Fiber-optic multi-mode for up to 2 km
- Fiber-optic single-mode for up to 20 km
- Dedicated network
- EN54-16 certified

FUNCTIONS:

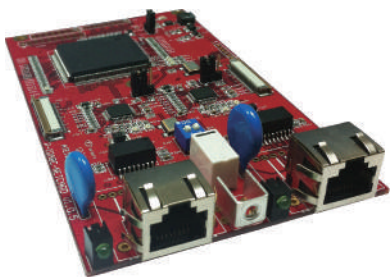
ATEIS Net™ is able to simultaneously transport 48 audio channels (32 bit, 48 kHz sampling rate) with a latency <1ms together with the necessary control data over a CAT-5 or fiber-optic dedicated network. For LOCAL and GLOBAL system networking, optional ATEIS Net™ networking cards can be installed into the IDA8 Controller and Slave units. Thanks to its loop architecture, the ATEIS Net™ audio network is fully redundant. When a fault (line open or shorted) occurs on a loop segment, it will be automatically isolated without affecting the entire system functionality. ATEIS global-net, can be a network of more than one controller(Matrix Mode and Switch Mode) and a maximum up to 31 IDA8Sxx Slave units (Matrix Mode and Switch Mode) in a local system.

As network addresses are auto negotiated, network setup is very easy. Once programmed, the system will operate independently without connecting to a PC having to be connected. 32 IDA8 system units can be a network in ATEIS Global-Net, and each system includes one control unit connecting to 31 slave units in ATEIS Local-Net.

The installation of NET-C1 cards (RJ45 to RJ45) are suitable with a maximum distance up to 100m between Matrix and Slave unit or Slave and Slave unit. For longer installation distances, optional NET-C2, C3 or C4 can be used to extend distances with fiber-optic, up to 2 km between units in multi-mode or 20 km in single-mode.

Note:

Port A = network IN  
 Port B = network OUT



NET-C1, 2x RJ45 Port A & Port B



NET-C2, 1x RJ45 Port B & 1x fiber Port A



NET-C3, 2x fiber Port A & Port B



NET-C4, 1x fiber Port B & 1x RJ45 Port A

## NET - CX

### ATEIS NET SECURED AUDIO NETWORK CARD

#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Battery power supply

Voltage	Internal multi-power socket
Power consumption	5 W

##### Performance

Frequency response	20 Hz ~ 22 kHz
Sampling rate	32 bit / 48 kHz
Latency	< 0.08 ms per node
Integrity assurance	Watchdog

##### Center Wavelength (Fiber-optic)

Multi-mode	1300 nm
Single-mode	1310 nm

##### FO connector type

Straight Tip

##### FO cable baud rate

62.5 um (Multi-mode)  
9 um (Single-mode)

##### Indicators

LED	Network active
LED	Network present

##### Mechanical

(H x W x D)	18 x 100 x 150 mm (7/10" x 4" x 6")
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##### Environmental

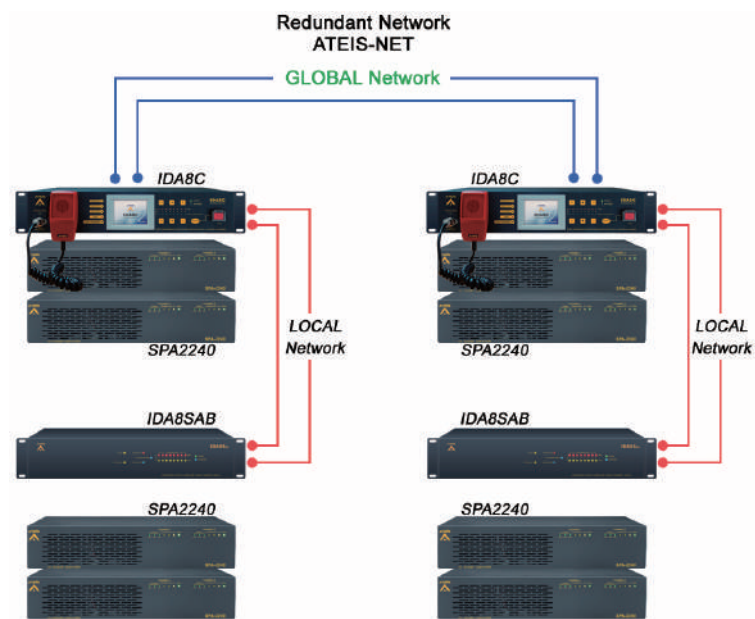
Operating temperature	-5°C ~ 55°C (23°F ~ 131°F)
Storage temperature	-40°C ~ 70°C (-40°F ~ 158°F)
Relative humidity	15% to 90%
Air pressure	600 to 1100 h Pa

#### PARTS INCLUDED

Quantities	Components
1	ATEIS Net™ secured audio network card
1	Set of interconnecting ribbon cables
1	Set of mounting pillars

#### SECURITY:

In accordance with EN54-16, UL60065, ISO 7240-16 and BS5839/8, all IDA8 system components and peripherals on the ATEIS Net™ secured audio network are monitored and reports stored in the IDA8C system controller. The controller monitors the status of all the equipment in the system, reports status changes and stores fault messages for recall either on the controller front-panel display or through the ATEIS Studio PC-based software.



ATEIS Local Net and ATEIS Global Net

#### CONTROLS AND INDICATORS

##### Front

- Data running indicator
- Net-work present indicator

#### INTERCONNECTIONS

##### Front

- Two system network connections either CAT5 or Fiber-optic or a combination

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

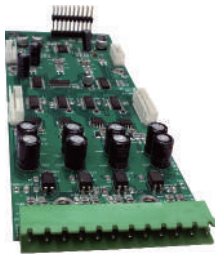
Region	Product	Certification
Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4



## OPTIONAL BOARDS

### Analog Audio I/O Cards:

Analog audio cards are available for local inputs or outputs in blocks of 4 or in a 2 in/2 out configuration. Highly adjustable for sensitivity and output power. An outstanding design with the maximized flexibility by providing with true 48V phantom power for each card.



**Input Audio Board**

- 4 Channels of analog audio inputs
- 3 pin Euroblock
- 0, 12, 24, 40, 54dB sensitivity levels
- Signal, RTO, overload indicators
- +48V phantom Power
- -60 to +20dB fiber range for level
- -50 to +20dB overload threshold
- Mute and bypass signal control
- Volume display for each channel
- RoHS compliant

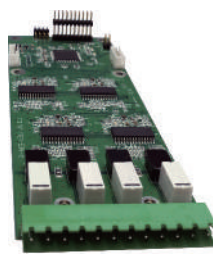


**Output Audio Board**

- 4 channels of analog audio outputs
- 3 pin Euroblock
- Signal, overload indicators
- -60 to +20dB fiber range for level
- -20 to +20dB overload threshold
- Mute and bypass signal control
- Volume display for each channel
- RoHS compliant

### Digital Audio I/O Cards

The digital audio I/O cards allow you to go all the way to digitize, presenting with the maximum sound quality and transmission distance on IDA8 platform. Digital cards enhance a higher capacity of input & output configuration with up to 8 channels in and 8 channels out on a single card.



**AES/EBU Card  
 (Mono Input / Output, Stereo  
 Input / Output, Duplex Stereo)**

- Mono Input / Output : 4 channels audio input and 4 channels output of digital audio, Stereo Input / Output: 2 Channels audio input (2 x 2) and 2 channels output of digital audio (2 x 2), Duplex Stereo (2 CH for each channel): 4 channels audio input (1,2 CH) and 2 channels outputs of digital audio (3,4 CH)
- 3 pin Euroblock
- RTO / Overload / Signal Indicators
- -20 to + 20 dB for overload threshold
- -60 to + 20 dB fiber range of level
- Level control
- Volume display for each channel
- Mute and bypass control
- Digital transmission can be reach 100 meter
- RoHS compliant

### Specialty Cards

How can a multi-project integrate in both PA/VA system and conference rooms? By adding the Telephone Card which successfully achieves the teleconferencing capabilities on IDA8 platform.



**Telephone Card**

Initiate outgoing calls:

- DTMF tone dialing
- Speed-dialing
- Redial
- Flash (3-way telephone conversation)
- Manual or auto answer incoming call
- (optional N times)
- Touch-tone decoding
- Caller ID reception
- Disable Hang up sound / Noise Suppression / Line Echo Cancellation / Voice Enhance signal control
- Continuous Line Status and Fault Monitoring
- Mute and level control for caller voice and ring tone
- Various way to control telephone module:
  - Control signal from logic components
  - External keypad remote controller
  - Software control panel
  - 3rd party command via RS232 or Ethernet
- Extensive customization options and parameters
- RoHS compliant

# Ordering Information

## Model Number Combination

Main	Optional Segment 1	Optional Segment 2	Optional Segment 3	Optional Segment 4
<b>IDA8C-</b>	Audio Card	+ Phone Card	+ Local Net Card	+ Global Net Card
<b>IDA8CSW-</b>	Audio Card	+ Phone Card	+ Local Net Card	+ Global Net Card
<b>IDA8SAB-</b>	Audio Card	+ Phone Card	+ Local Net Card	N/A
<b>IDA8SABSW-</b>	Audio Card	+ Phone Card	+ Local Net Card	N/A
<b>IDA8S-</b>	Audio Card	N/A	+ Local Net Card	N/A

Audio Card		Phone Card		Local Net Card		Global Net Card	
A	Digital I/O	T	Phone Card	L1	RJ45(A)-(B)	G1	RJ45(A)-(B)
2A	Digital I/O x2			L2	Fiber Optic Multi Mode(A)-RJ45(B)	G2	Fiber Optic Multi Mode(A)-RJ45(B)
I	4 Ch. Mic/Line Input			L2S	Fiber Optic Single Mode(A)-RJ45(B)	G2S	Fiber Optic Single Mode(A)-RJ45(B)
O	4 Ch. Line Output			L3	Fiber Optic Multi Mode(A)-(B)	G3	Fiber Optic Multi Mode(A)-(B)
2I	8 Ch. Mic/Line Input			L3S	Fiber Optic Single Mode(A)-(B)	G3S	Fiber Optic Single Mode(A)-(B)
2O	8 Ch. Line Output			L4	RJ45(A)-Fiber Optic Multi Mode(B)	G4	RJ45(A)-Fiber Optic Multi Mode(B)
				L4S	RJ45(A)-Fiber Optic Single Mode(B)	G4S	RJ45(A)-Fiber Optic Single Mode(B)

### Example 1

IDA8C- 20L1G3S

2O: 8 Ch. Mic/Line Audio Input

L1: Local Net Card-RJ45(A)-(B)

G3S: Global Net Card-Fiber Optic Single Mode(A)-(B)

### Example 2

IDA8SABSW-TL4S

L4S:RJ45(A)-Fiber Optic Single Mode(B)

### IDA8 REDUNDANT SWITCHING UNIT

#### RU-MAIN:

Amplifier Input and Output/PDC

#### RU-CTL:

Output control/EVAC Input

#### RU-PDC:

Telephone/PDC/Audio I/Os

In cooperation with RU devices for redundancy purpose, please refer to our local sales for:

- External DC power calculation for IDA8S
- Special order for IDA8C, IDA8C-SW, IDA8SAB and IDA8SAB-SW

**ATEIS**



DELIVERING YOUR MESSAGE

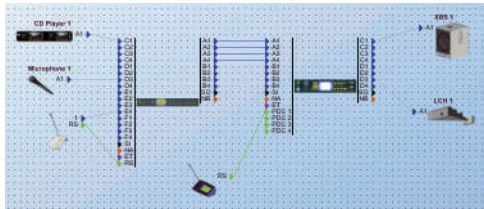
## ATEiS Studio

### INTEGRATED OPERATION SOFTWARE

ATEiS Studio is a user-friendly graphic user interface designed for intuitive system setup. The PC-based software allows hardware updating, full system configuration and generates the user interface for day-to-day system operation.

#### GRAPHICAL USER INTERFACE:

ATEiS Studio allows complete PA/VA / audio systems incorporating a range of devices to be configured, monitored and controlled centrally from a single user interface. ATEiS Studio supports all IP-based products within the ATEiS product family such as IDA8, LAP-AS and ECS. The software enables a comprehensive overview of the system and its virtual connections and also offers control and configuration for power amplifiers, paging consoles and remote controllers such as PSS-AS, CD16-AS and URC-AS devices.



#### DIAGNOSING:

ATEiS Studio monitors, controls, logs and reports a range of events. The whole system configuration preset can be stored and reloaded at the press of a button, depending on application. Users can tailor design elements of the graphic user interface or control panels, as well as program automatic sequences of events and create different levels of user access for security and rights management.

#### BUILDING:

ATEiS Studio provides a complete set of tools and building blocks for real-time control, monitoring and design of an audio system or Voice Evacuation system from paging console to loudspeaker. Detailed information such as signal levels, loudspeaker impedance, pre-recorded messages, amplifier conditions and other parameters can be monitored in real-time.

A comprehensive library of tools, control and monitoring elements is provided along with the GUI, including items such as volume control faders, metering, high-level EQ, compression, limiting, auto-gain, noise sensing, mixing, shortcut buttons and display elements. Element behavior can be fully tailored to suit each application. Built-in file transfer software transfers both data and audio files from the PC to the network controller.

#### ACCESS LEVELS:

Additional security can be added to the software with password-protected layers according to EN 54-16. Multiple users can be created and assigned, each with a unique password and access to specific layers of the GUI. This creates a control surface specific which meets the need of system designers and operators at multiple levels.



#### Configuration software

- Runs on Windows
- Assignable access levels with rights management
- All system and unit parameters can be configured
- Easy navigation
- Drag & Drop features
- Real-time monitored

#### Diagnostic and logging software

- Call, fault and general event logging
- On-line logging function
- Historical logging
- Event display priority can be changed
- Password-protected

#### File transfer software

- PC-based application
- Supplied together with the network controller
- Creation of message sets
- Off-line configuration

#### NOTE:

ATEiS Studio Software Version:

**Version 1.X.X.XX for ATEiS Local-Net**

**Version 3.X.X.XX for ATEiS Global-Net**

ATEiS global-net System:

ATEiS global-net, can be a network of more than one controller (Matrix Mode and Switch Mode) and a maximum up to 31 IDA8Sxx Slave units (Matrix Mode and Switch Mode) in a local system.

## ATEiS Studio

POWERFUL DIGITAL SIGNAL PROCESSING

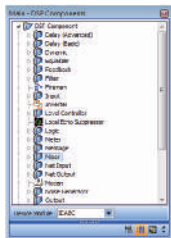
ATEiS designs and manufactures the leading products in the digital public address & voice alarm systems market. A highly demanding public transportation network is installed into IDA8-series in Europe, United States, Asia, the Middle East and global market where it is dominating the market for high-tech audio communication solutions that combine redundant networks on CAT5, Fiber-optic and TCP-IP.

IDA8-series of products is the ideal choice for commercial audio applications where schedule events and background music are an integrated part of the voice-alarm, low-Z sound system. Both applications guarantee for superb quality of sound and intelligibility. IDA8-series of products are complied with the EN54-16, UL60065, ISO 7240-16 and BS5839/8

### Drag & Drop:

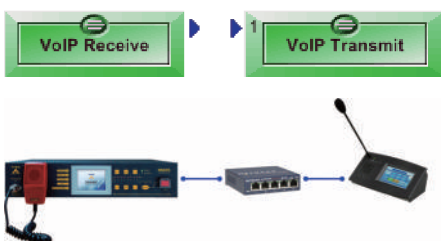
After the determination of the devices included in your system, you can start configuring the internal signal paths independently for each device with all the existing features that the huge component library have offered. Simply by Drag & Drop and connects to different audio components.

The all-in-one manipulating platform enhances an easy-to-use and real-time monitored tool, helping you to concentrate on creating the cutting-edge technology.



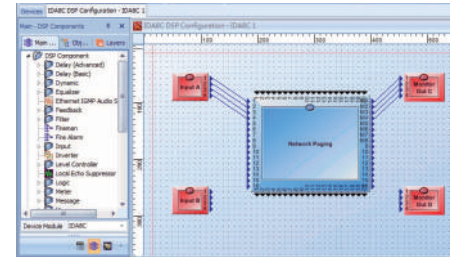
### VOIP:

IDA8 system, supporting VoIP based on SIP protocol and Audio over IP applications by using PPM-IT5 paging remote which makes an ideal and simple solution for bridging audio and contact closures over long distance LAN and WAN network. Efficiency and reliability are the unique features we have succeeded, even dial-up users can experience the excellent sound quality.



### Matrix Mixer:

Breakthrough feedback cancellation -Correcting feedback and alleviates the annoyance automatically. The feedback component analyzes and detects the feedback source and adaptively attenuates the responsible frequency. There are 4 types of feedback components which are corresponded to the numbers of filters (4, 8 12 or 16) that the feedback will use.



### Auto Noise Gain (A.N.G.) / DNM:

Featuring an integrated real-time frequency analyzer and flexible per-channel, which makes a excellent performance in a variety of operating environments. Configuring and adjusting the dynamic equalization bands can be easily done by its delectated interface.



### Page Control:

Some applications which are integrated in PA/VA system require a huge number of zones for paging. It needs to be done with multiple ATEiS audio processors (Matrix mode and Switch Mode) connected together via ATEiS Net. The Network Paging component provides the capabilities of routing the input source signal to zones and each source can specify which zone wants to page by its priority value.



### Telephone Card:

The Telephone Card component is based as a traditional telephone interface which manages the telephone call for IDA8 system. The telephone card component consists of a TC transmit component and a TC receive component, providing with dial, receive, detect the logic signal response of DTMF status.



Public Address - Voice Alarm

Audio Distribution over IP

Commercial Audio

Loudspeakers

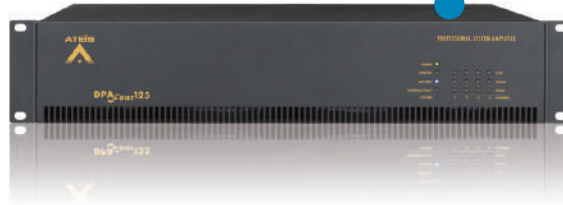


# Amplifiers

DPA*four* (Digital Power Amplifier) and BPA (Bridging Power Amplifier) are designed for public address or voice alarm system application. They were specifically developed to meet the requirements of EN54-16 and can therefore also be used as part of fire detection and fire alarm systems.



DPAfour  
Digital Power Amplifiers



BPA  
Bridging Power Amplifiers



## DPAfour

### DIGITAL POWER AMPLIFIERS



#### MAIN CHARACTERISTICS

- 4 audio outputs (100 V / 70 V / 50 V / 4 Ohm selectable)
- Fault reporting outputs
- Four audio input gain control
- Advanced audio processing for each amplifier channel using IDA8 systems
- Supervision of the amplifiers through IDA8 systems
- Back up amplifier switching through IDA8 systems
- Loudspeaker line monitoring with IDA8
- Output bridging for higher power

The DPAfour is a 2RU 19" rack mountable, 4-channel class-D power amplifier, transformer isolated for 100 V, 70 V, 50 V and 4 Ohm distributed loudspeaker systems. There are two models in the DPAfour range:

- DPAfour 125 rated at 4 x 125 W
- DPAfour 250 rated at 4 x 250 W

One model in 8-channel range:

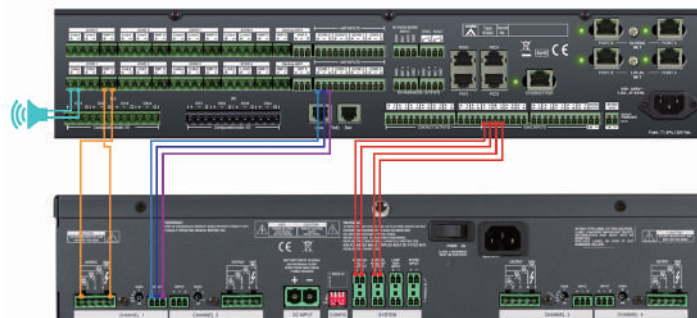
- DPA8060 rated at 8 x 60 W

Each channel can deliver up to 125/250W as a separate channel or can be bridged to deliver higher power. The amplifier has a dual-voltage mains supply 115/230V AC (selectable internally) and a 24 VDC battery back-up connection.

In combination with IDA8 the DPAfour amplifiers have the following features:

- Loudspeaker line monitoring for Shortcut Open line Ground leakage.
- Single spur A/B loudspeaker lines individually monitored By adding a SONAES to the system a fully EN54-16 certified Voice Alarm system will be created, with extensive PA capabilities.

IDA8 & DPA  
 Wiring example



# Amplifiers

## DPAfour

### DIGITAL POWER AMPLIFIERS

#### CONTROLS AND INDICATORS

- LED VU metering
- Status indicators for: Signal, Clip, Mains, Battery, Channel fault and General fault

#### INTERCONNECTIONS

##### Rear

- Rotary volume control
- Mains switch
- AC power socket
- 24VDC backup power input
- Four line inputs
- 100 V, 70 V, 50 V or 4 ohm outputs (for each amplifier channel)

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
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#### PARTS INCLUDED

Quantities	Components
1	DPA xxxx Digital Power Amplifier
1	Power cord
1	Set of connectors



#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Mains power supply

Voltage	230/115 VAC ±15%, 50/60 Hz
Power consumption**	standby - idle* - Pmax (per CH.)
DPA8060	5 W – 10 W – 85 W
DPA4125	1 W – 38 W – 180 W
DPA4250	1 W – 44 W – 360 W

\*\* (Total Mains-power consumption @ 230 VAC)

\* (Alarm cycle + 10 V pilot-tone @ 24 VDC)

##### Battery power supply

Voltage	19-30 VDC
Power consumption**	standby - idle* - I <sub>max</sub> (per CH.)
DPA8060	0.2 A – 0.4 A – 2.6 A
DPA4125	0.03 A – 1.45 A – 5.6 A
DPA4250	0.03 A – 1.65 A – 11 A

\*\* (Total Mains-power consumption @ 230 VAC)

\* (Alarm cycle + 10 V pilot-tone @ 24 VDC)

##### Performance

Line inputs	4 x (One per channel) 8 x for DPA8060
Connector	3-pin phoenix
Frequency response	+/-3 dB @ 50 Hz and 20 kHz
SNR	> 90 dB
THD	< 0.1% @ 1 kHz
Input sensitivity	770 mV
Input impedance	22k Ohm

##### Loudspeakers outputs DPA8060

Rated load resistance	167 Ohm (100 V); 82 Ohm (70 V)
Rated load capacitance	30 nF (100 V); 60 nF (70 V)
Rated output power	60 W (1 min. at 40°C) (per CH)

##### Loudspeakers outputs DPA4125

Rated load resistance	80 ohm (100 V)
Rated load capacitance	62.5 nF (100 V)
Rated output power	125 W (cont. at 40°C) (per channel)
Two channels bridged	250 W (cont. at 40°C)

##### Loudspeakers outputs DPA4250

Rated load resistance	40 ohm (100 V)
Rated load capacitance	120 nF (100 V)
Rated output power	250 W (cont. at 40°C) (per channel)
Two channels bridged	500 W (cont. at 40°C)

##### Frequency response

Frequency response	40 Hz to 20 kHz(-3 dB)
SNR	>90 dB (no pilot tone)
Crosstalk	<70 dB at nominal load for 1 kHz
Distortion	<0.1% (@ 1 kHz) @ -10dB of rated output power

##### Mechanical

Dimensions (19" with the fixing holes included)	
(H x W x D)	2RU, 88.5 x 483 x 370 mm (3-1/2" x 19" x 14-3/5")

##### Weight

DPA8060	12.7 kg (27.9 lbs)
DPA4125	14 kg (31 lbs)
DPA4250	18 kg (40 lbs)

Mounting 19"-rack mount

Color RAL7016

##### 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 1100 h Pa
Heat dissipation	
DPA8060	685 BTU/hr
DPA4125	750 BTU/hr
DPA4250	1500 BTU/hr



## BPA

### BRIDGING POWER AMPLIFIERS



#### MAIN CHARACTERISTICS

- 2 audio outputs for BPA-2120, BPA-2240 and BPA-2480 (100V/50V/8 Ohm selectable outputs)
- Fault reporting outputs
- Auto switch to sleep mode/active mode
- Two audio input gain control
- 2 channels BPA-2120, BPA-2240, BPA-2480 can be paralleled or bridged into one

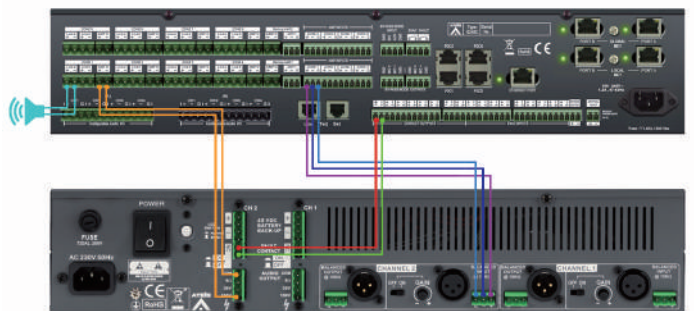
The BPA is a 2U 19" rack-mountable, 2-channel amplifier, transformer isolated for 100V/50V/70V or 35V constant voltage outputs and a low impedance output for 8 Ohm loudspeakers. The 2 line inputs are with a balanced 3-pin XLR input and a balanced 3-pin phoenix input. The BPA amplifier range consists of 4 models: BPA-2120(120W x 2), BPA-2240(240W x 2), BPA-2480(480W x 2) and BPA-1000(1000W x 1) and BPA-2120, BPA-2240, BPA-2480 can be paralleled or bridged by combining 2 channels into one.

The BPA amplifiers are designed to have short-to-ground, protection of short-circuit, overload and temperature. In addition, the BPA is also a green power saving unit which handles less power consumption by supporting auto sleep mode/active mode when signal is detected/not detected.

The BPA amplifier has a 230VAC and 110VAC mains supply and a 48VDC battery back-up input. The LEDs on the front panel of BPA show the status of the amplifier: power, fault, overload temp and VU Meter.



IDA8 & BPA Wiring example



# Amplifiers

## BPA

### BRIDGING POWER AMPLIFIERS

#### CONTROLS AND INDICATORS

##### Front

- VU meter LEDS(-40dB, -20dB and 0 dB)
- Temperature overheat LED
- Overload LED
- Power LED
- Power fault LED

##### Back

- Power switch
- ON/OFF fault power LED

#### INTERCONNECTIONS

- AC power socket
- Line input 1(XLR or euro-terminal block/balanced)
- Line input 2(XLR or euro-terminal block/balanced)
- 100 V, 50 V, 8 ohm or 70V 35V outputs
- Channel 1 output terminal
- Channel 2 output terminal
- Two rotary level controls and ON/OFF switches
- EN54-16 LED switch
- Two 48VDC battery backup power input
- Fault contact

#### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
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#### PARTS INCLUDED

Quantities	Components
1	BPA xxxx Bridging Power Amplifier
1	Power cord (type depends on region)
1	Set of connectors
1	Set of 19" rack mount brackets
1	Set of feet

#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Mains power supply

Voltage	230 VAC ±10%, 50/60 Hz
Power consumption**	standby - idle* - full load(per ch.)
BPA2120	2.5 W – 11 W – 295 W
BPA2240	2.5 W – 11 W – 550 W
BPA2480	2.5 W – 13 W – 1000 W
BPA1000	3.0 W – 15 W – 1000 W

\*\* (Total Mains-power consumption)

\*Idle: Measured with 10 Volt surveillance tone on the output.

##### Fuse Rating

BPA2120	5 A@110 V, 2.5 A@250 V
BPA2240	8 A@110 V, 5 A@250 V
BPA2480	16 A@110 V, 7 A@250 V
BPA1000	18 A@110V, 9 A@250 V

##### Battery power supply

Voltage	48 - 53 VDC
Power consumption**	standby - idle* - full load(per ch.)
BPA2120	0.09 A – 0.16 A – 4.07 A
BPA2240	0.09 A – 0.23 A – 8.13 A
BPA2480	0.09 A – 0.23 A – 13 A
BPA1000	0.12 A – 0.23 A – 32 A

\*\* (Per ch. @ 48 VDC )

\* (Alarm cycle + 10 V pilot-tones @ 48 VDC)

##### Performance

##### inputs

Line inputs	2 x (One per channel)
Connector	3-pin XLR and 3-pin phoenix (electronically balanced)
Frequency response	+/-3 dB @ 50 Hz and 18 kHz
SNR	> 90 dB @ 1K Hz at full power
THD	< =1% @ 1 kHz
Input range	-6 dBV to 6 dBV / 770mV
Input impedance	22k Ohm

##### Outputs

Rated load resistance	83 Ohm (100 V); 20 Ohm (50 V)
Rated load capacitance	60 nF (100 V); 250 nF (50 V)
Rated output power	120 W (1 min. at 40°C) (per CH)

##### Loudspeakers outputs BPA2240

Rated load resistance	40 ohm (100 V); 10 ohm (50 V)
Rated load capacitance	125 nF (100 V); 500 nF (50 V)
Rated output power	240 W (1 min. at 40°C) (per CH)

##### Loudspeakers outputs BPA2480

Rated load resistance	20 ohm (100 V); 5 ohm (50 V)
Rated load capacitance	250 nF (100 V); 1 uF (50 V)
Rated output power	480 W (1 min. at 40°C) (per CH)

##### Loudspeakers outputs BPA1000

Rated load resistance	10 ohm (100V); 2.5 ohm (50V)
Rated load capacitance	521 nF (100V); 500 nF (50V)
Rated output power	240 W (1 min. at 40°C)(per CH)
Frequency response	20 Hz to 20 kHz @ -3 dB
SNR	> 90 dB (no pilot tone)
Crosstalk	< 80 dB at nominal load for 1 kHz
Distortion	< 1% (@ 1 kHz) @ -10dB of rated output

##### Mechanical

Dimensions (For 19" rack use with brackets)  
(H x W x D)

BPA2120 / BPA2240	2RU high, 88 x 430 x 375 mm (3-1/2" x 17" x 14-3/4")
BPA2480	2RU high, 88 x 430 x 430 mm (3-1/2" x 17" x 17")
BPA1000	2RU high, 88 x 425 x 430 mm (3-1/2" x 17-1/4 " x 17")

##### Weight

BPA2120	13.7 kg (30.2 lbs)
BPA2240	16.2 kg (35.7 lbs)
BPA2480	20.5 kg (45.1 lbs)
BPA1000	21 kg (46.2 lbs)

Mounting 19" rack mounting

Color RAL7016

##### Environmental

Operating temperature	-5°C ~ 55°C (23°F ~ 131°F)
Storage temperature	-40°C ~ 70°C (-40°F ~ 158°F)
Relative humidity	5% to 90%
Air pressure	600 to 1100 h Pa
Heat dissipation	
BPA2120	1160 BTU/hr
BPA2240	2110 BTU/hr
BPA2480	3550 BTU/hr



EN54  
16

PSS AS

Color Touch-Screen Secured  
Paging Console

# Consoles and Accessories

PSS AS: paging console, CD-touch : wall-mounted monitored touch -screen paging console, CD8 / CD16 : Wall-mounted Monitored Paging Console, PPM: Desktop Paging Consoles for Commercial Use, DialPad / Wireless Transceiver : Touch Dial device for IDA8 system, RAC5 / RAC8 : Wall-mounted Level Sources Remote Selector, URC - Programmable Remote Controller with Display, DNM - Digital Noise Sensing Microphone, URGP - Alarm Input Interface for IDA8 System, respond to Public Address and Voice Alarm requirements with specific attributes for compliance in small, medium and large installations.



PPM-IT5

Color Touch-Screen Secured  
IP Paging Console



PPM

Desktop Paging Consoles

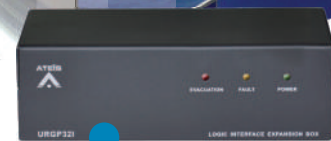
URC  
 Programmable Remote  
 Controller with Display



CD-Touch  
 Wall-mounted Monitored  
 Touch -screen Paging Console



CD 8 / CD16  
 Wall-mounted Monitored  
 Paging Console



URGP  
 Alarm Input Interface



## PSS AS / PPM-IT5

### FULL COLOR TOUCH-SCREEN SECURE PAGING CONSOLE



#### PSS MAIN CHARACTERISTICS

- Secured CAT-5 link to controllers and slaves
- Supervision of microphone capsule
- Monitoring loudspeaker
- 5" full color touch-screen, 800 x 480 pixels
- 14-pages x 12 keys
- Power, status and fault indicator
- Comprehensive system status information from touch-screen
- EN54-16 certified

#### PPM-IT5 MAIN CHARACTERISTICS

- 5" TFT full color paging console
- High quality gooseneck microphone and built-in loudspeaker
- Ethernet interface including PoE (Power Over Ethernet)
- Automatic gain control on microphone input
- Echo cancellation / Noise Reduction
- Up to 300 pages x 12 keys
- G.711 / G.722 / G.726 / G.727 audio encoding /decoding
- Audio Stream using SHOUTcast / ICEcast (AAC 48K/44.1K) protocols
- Half or full duplex conversation
- Memory space for prerecorded messages and chime
- 3 key-buttons: User-definable via ATEiS Studio GUI
- RJ 9 for telephone headset and 2 mini-jack plugs for headset (optional)

The PSS paging console comes with a 5" TFT touch screen interface which allows call-paging, message broadcasting and DSP matrix parameter control over a secure (monitored) bus. The backlit full-color touch screen is designed for simple, user-friendly operation and offers a total of 168 software keys across 14 pages for zone or group of zones selections. Each key contains a color-changing field indicating that the zone is occupied by a different process. Alongside the touch screen, three hardware keys are also provided for free assignment within the software.

Several levels of operation with password protection make the PSS a versatile device that fits as well in a commercial shopping center as in an industrial high-security environment. All paging parameters for site operation can be pre-programmed; zones can be assigned, named, grouped to different buttons, message triggered and level, pre-call chime set and adjusted. The message and the chime can also be stored in the PSS console. In addition, fader control, button control and event control can also be pre-configured.

The PSS AS is powered by 24V DC supply.

**Note:** There are two versions of the PSS paging console with identical hardware and functionality but different firmware for compatibility with different systems.

**PSS AS:** Used with IDA8 system and ECS system controllers and slaves

The ATEiS range of security systems complies with current architectural demands requiring IP and/or fiber-optic networking to cater for any possible PA/VA design, however complex. ATEiS responds to Public Address and Voice Alarm requirements as stated in EN54-16, ISO 7240-16 and BS5839/8, with specific attributes for compliance in large installations.



**PPM-IT5:** The 3 hardware keys can be freely assigned by software. The PPM-IT5 Media console is a versatile device that enhances paging over IP-networking.

All paging parameters needed for site operating can be programmed: zones assigned to different buttons, name of zones, group of zones, messages triggering or event control. A total of 3600 keys over 300 pages allow zones or groups of selection. All the settings shall be done via web pages with your web browser.



# Consoles & Accessories

## PSS AS / PPM-IT5

### FULL COLOR TOUCH-SCREEN SECURE PAGING CONSOLE

#### CONTROLS AND INDICATORS

- 5" full color touch-screen, 800x480 pixels
- Three LED status indicators
- Three hardware function keys-buttons
- 280 mm gooseneck microphone

#### INTERCONNECTIONS

##### Rear

- RJ45 for CAT-5 connection
- 3.5mm mini-jack for headset
- Additional power supply connector for long-line support

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
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#### PARTS INCLUDED

Quantities	Components
<b>PSS AS</b>	
1	PSS AS
1	CAT-5 cable, 1.5 m
<b>PPM-IT5</b>	
1	PPM-IT5XX
1	CAT-5 cable, 1.5 m
1	AC-DC power adapter

#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Mains power supply

Voltage	18~30 VDC PoE: 24 VDC
Power consumption	250 mA

##### Performance

##### Frequency response

<b>PSS AS</b>	-3 dB @ 200 Hz to 8 kHz
<b>PPM-IT5</b>	-3 dB @ 100 Hz to 18 kHz
THD	< 1% @ 1 kHz
Output level Max	6 dBu
Noise gate threshold	-84 dBu ~ - 24 dBu
Attack time	8 ms
Release time	100 ms
Output impedance	100 Ohm

##### Monitoring speaker

Impedance	4 Ohm
Output power	1 W @ 1 Khz
Frequency response	-3 dB @ 200 to 12 kHz

##### Headset

##### Connector

<b>PSS AS</b>	3.5 mm mini-jack
<b>PPM-IT5</b>	2 x 3.5 mini-jack

##### System Connection

Cable type	CAT-5 (FTP)
Length	100 m

##### Mechanical

Dimensions(H x W x D)	80 x 250 x 140 mm (3-1/5" x 9-4/5" x 5-1/2")
Weight	1.1 kg (2.4 lbs)
Color	RAL7016

##### 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 1100 h Pa
Heat Dissipation	20 BTU/hr



## PPM AS

### DESKTOP PAGING CONSOLES

PPM is a unidirectional addressable condenser paging microphone compatible with IDA8 systems. PPM uses RS485 protocol over a single CAT-5 cable connection to transport both audio and power from the paging console to the system units. The PPM has 8 zone buttons with a sleek gooseneck microphone, providing both durability and aesthetics in a slim, stable chassis.

#### MAIN CHARACTERISTICS

- Desktop enclosure
- Monitored CAT-5 link to controllers and slaves
- Supervision of microphone capsule (not on slave units)
- Automatic gain control on microphone input
- 8-zone selection keys (Expandable with additional keypads)
- All-call key
- Power indicator
- EVAC indicator
- Status and fault indicator
- Monitor speaker



PPM AS with keypads



PPM is a unidirectional addressable condenser paging microphone compatible for IDA8 systems. In accordance with BS5839, PPM is monitored by using RS485 protocol over a single CAT-5 cable connection to transport both audio and power from the paging console to the system units. The PPM has 8 zone buttons with a sleek gooseneck microphone, providing both durability and aesthetics in a slim, stable chassis.

The PPM enables live announcement to any pre-assigned zones (an optional SP version also allows for broadcasting the pre-recorded messages). The paging station has a gooseneck microphone, a push-to-talk button, zone selection keys and a monitor speaker. Buttons represent a single zone or a group of zones and be easily defined in the software using a simple matrix selection. All buttons can be programmed with drag & drop features from the software and each button can be programmed for PTT (Push To Talk) or latching functionality.

In addition to the zone LEDs, "Hold" and "Busy" LED signals make PPM an extremely user-friendly paging console. Thanks to the cardioids polar pick-up pattern, the unidirectional condenser microphone ensures the high-quality and directive signal pick-up with minimal interference from the surroundings.

The RS485 communication protocol allows daisy-chain wiring up to 300m on a single CAT-5 cable (FTP/STP) and makes each station easy to connect by using standard RJ45 connectors and the junction connection box (supplied with PPM). Also, the console can be powered locally with 24V DC supply.

**Note:** There are three versions of the PPM paging console with identical hardware and functionality but different firmware for compatibility with different systems.

**PPM AS:** Used with IDA8 system controllers and slaves, ATEIS Audio Processor, LAPG2T and UAPG2

# Consoles & Accessories

## PPM AS

### DESKTOP PAGING CONSOLES

#### CONTROLS AND INDICATORS

- Three LED status indicators
- Activity indicators
- Zone selection buttons
- Gooseneck microphone
- Monitor speaker

#### INTERCONNECTIONS

##### Rear

- RJ45 for CAT-5 connection

#### PARTS INCLUDED

Quantities	Components
1	PPM AS
1	Junction box
1	CAT-5 cable, 10pin, 1.5 m

#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Battery power supply

Voltage	18 - 26 VDC
Power consumption	120 mA

##### Performance

Frequency response	-3 dB @ 200 to 8kHz
THD	< 0.1% @ 1 kHz
Output level Max	6 dBu
Noise gate threshold	-84 dBu ~ -24 dBu
Attack time	8 ms
Release time	100 ms
Output impedance	100 Ohms

##### Monitoring speaker

Impedance	4 Ohm
Output power	1 W @ 1 KHz
Frequency response	3 dB @ 200 to 12 kHz

##### System Connection

Cable type	CAT-5, 10 pin (FTP)
Length	100 m

##### Mechanical

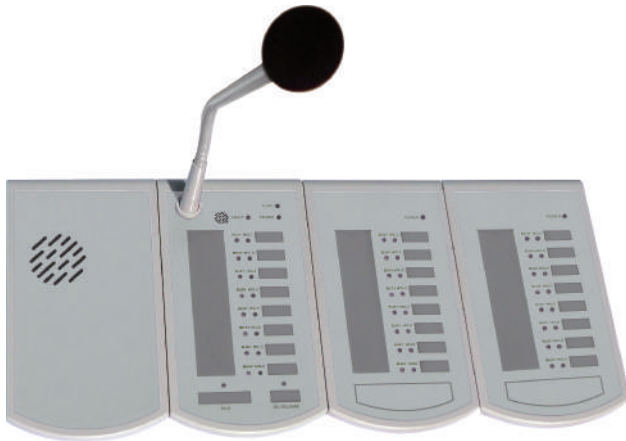
Dimensions(H x W x D)	50 x 105 x 190 mm (2" x 4-1/5" x 7-1/2")
(With gooseneck)	350 x 105 x 190 mm (13-3/4" x 4-1/5" x 7-1/2")
Weight	0.7 kg (1.54 lbs)
Color	RAL7035

##### 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 1100 h Pa
IP rating	30
Heat Dissipation	10 BTU/hr

## PSC

### DESKTOP PAGING CONSOLES



The PSC microphone console, an Unidirectional Condenser Addressable Microphone which is compatible with all system units. By using RS485 protocol with daisy-chain wiring can support up to 100M over a single CAT5 cable connection, PSC transmits both audio data and power supply to system units. PSC comprises of 8 zones / 8 buttons with sleek condenser gooseneck microphone, and spring metal protection, providing durability and excellent aesthetics as well as enhancing up to 256 zones expansion via the additional keypad. The control buttons represent a single zone or a group of zones and are easily defined via the GUI of the system units using a simple Matrix selection.

Besides the original speaker, PSC also supports an external speaker to monitor the audio source. The unit offers "Hold" and "Busy" LED signals in addition to the zone LED's, and these features allow an easy identification of Selection / Busy signals for users.

All buttons can be programmed with drag & drop features from the System unit GUI software and each button can be programmed for Push To Talk function or Latch functionality. The unidirectional condenser microphone warrants picking up the high quality of directive signal and less interference from the surroundings.

### SPECIFICATIONS

#### CONTROLS AND INDICATORS

- Goose-neck Microphone
- Fault / EVAC / Power / Talk / Hold / All Call / Release / Busy Indicator
- All Call/Release/Talk Button
- Microphone Connector
- Event Select Key

#### INTERCONNECTIONS

##### Rear

- RS485 for CAT-5 connection

#### PARTS INCLUDED

Quantities	Components
1	PSC-XX
1	Junction Box
1	CAT-5 cable, 10pin, 1.5 m

#### TECHNICAL SPECIFICATIONS

##### Electrical

###### Mains power supply

Voltage	18~30 VDC PoE: 44~57 VDC)
Power consumption	150 mA

##### Performance

Frequency response	-3 dB @ 200 Hz to 20 kHz
THD	< 1% @ 1 kHz
Output level Max	6 dBu
Noise gate threshold	-84 dBu ~ -24 dBu
Release time	100 ms
Output impedance	100 Ohm

##### System connection

Cable type / Length	CAT-5,10 pin (FTP) / 100 m (max.)
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##### Monitoring speaker

Impedance	8 Ohm
Output power	1 W @ 1 KHz
Frequency response	-3 dB @ 200 to 20 kHz

##### Mechanical

Dimensions(H x W x D)	116 x 220 x 483 mm (4-3/5" x 8-3/5" x 19")
Weight	0.37 kg (0.8 lbs)
Color	RAL7035

##### 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 1100 h Pa
IP Rating	30
Heat Dissipation	12 BTU/hr

## CD-Touch

### WALL-MOUNTED MONITORED TOUCH-SCREEN PAGING CONSOLE



#### MAIN CHARACTERISTICS

- Wall-mounted metal enclosure with lockable cover
- Secured CAT-5 link to controllers and slaves
- Monitoring of microphone capsule
- Monitoring loudspeaker
- 5" full colour touch-screen, 800x480 pixels
- 14 pages of 12 buttons
- Power, Fault and Evac indicators
- Comprehensive system status information from touch-screen
- EN54-16 certified

The CD-TOUCH paging console is a paging interface that allows call-paging, message broadcasting and DSP matrix parameter control. It contains a 5" full-color backlit touch-screen for simple, user-friendly operation. The screen offers up to 168 buttons across 14 pages which can be freely assigned in the software to any zone or group of zones. Each key contains a color-changing field indicating if the zone is occupied by a different process. In addition, the CD-TOUCH has 3 hardware keys that can be assigned within the system control software.

All paging parameters for site operation can be pre-programmed and stored within the console, including message triggering, level adjustment and pre-call chime setup. Zone assignment, naming and grouping can also be pre-configured.

The CD-Touch-XX units connect to a monitored bus on CAT-5 FTP/STP. This connection also provides Power Over Ethernet (POE). In case POE is not available, or if the cable run is greater than 100m, an additional power connection is provided with 24 VDC supply.

The ATEIS range of security systems complies with current architectural demands requiring IP and/or fiber-optic networking to allow for even the most complex of system designs. ATEIS responds to Public Address and Voice Alarm requirements as stated in EN54-16, ISO 7240-16 and BS5839/8, with specific attributes for compliance in large installations.

CD-TOUCH is available in two different versions with identical hardware and functionality but different firmware for compatibility with different systems.

**CD-TOUCH-AS:** For use with IDA8 and ECS system controllers and slaves

## SPECIFICATIONS

### CONTROLS AND INDICATORS

- 5" full color touch-screen, 800x480 pixels
- Three LED status indicators
- Three hardware function keys-buttons
- Fireman's fist microphone with PTT switch

### INTERCONNECTIONS

#### Rear

- RJ45 for CAT-5 connection
- Additional power supply connector  
(for 24 V DC external supply in PoE not available)

### PARTS INCLUDED

Quantities	Components
1	CD-Touch-XX
1	CAT-5 cable, 1m

### TECHNICAL SPECIFICATIONS

#### Electrical

##### Mains power supply

Voltage	18~26 VDC
Power consumption	250 mA

#### Performance

Frequency response	-3 dB @ 200 Hz to 8 kHz
THD	< 1% @ 1 kHz
Output level Max	6 dBu
Noise gate threshold	-84 dBu ~ -24 dBu
Attack time	8 ms
Release time	100 ms
Output impedance	100 Ohm

#### Monitoring speaker

Impedance	4 Ohm
Output power	1 W @ 1 KHz
Frequency response	-3 dB @ 200 to 20 kHz

#### System connection

Cable type / Length	CAT-5 (FTP) / 100 m (max.)
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#### Mechanical

Dimensions(H x W x D)	397 x 206 x 127 mm (15-3/5" x 8-1/10" x 5")
Weight	4.4 kg (9.7 lbs)
Color	RAL7016

#### 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 1100 h Pa
Heat Dissipation	20 BTU/hr

## CD8 / CD16

### WALL-MOUNTED MONITORED PAGING CONSOLE

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CD8

EN54  
16



CD16

#### MAIN CHARACTERISTICS

- Wall-mounted enclosure
- Secured CAT-5 link to controllers and slaves
- Monitoring of microphone capsule
- 8/16 zone selection buttons
- All-call button
- LED test button
- Power indicator
- EVAC indicator
- Status and fault indicator
- EN54-16 certified

The CD8 / CD16 paging console is a remote paging interface with Access Level 2 protection in compliance with EN54-16. Compatible with IDA8 PAVA systems, the unit serves up to eight zones individually with an All-Call option. Zone selection buttons and Fireman microphone are encased in a heavy-duty IP30 wall-mounted metal box with a lockable door.

The CD8 / CD16 console use the same architecture as the PPM paging console, a junction box embedded into the enclosure multiple units by daisy-chaining wiring (only the first console in the chain is under monitored). The maximum distance between units is up to 100M. The zone buttons of CD8 / CD16 represent a single zone or group of zones and can be easily programmed through the system GUI using "drag and drop" functionality. The Push-To-Talk button can be programmed for PTT or latching operation. The status indicators including Power, EVAC and Fault which show the status of all the zone are also provided with.

The CD8 / CD16 is powered over RS485 via CAT-5 (FTP/STP), however if power is not available over RS485 it can be locally powered by using a 24V DC supply.

**Note:** There are two versions of the CD8 / CD16 paging console with identical hardware and functionality but different firmware for compatibility with different systems.

**CD8-AS / CD16-AS:** Used with IDA8 system and ECS system controllers and slaves (one CD8 / CD16 connects to per PDC port with a maximum up to 10 units by daisy-chain wiring and external power supply should be used for every third unit ).

The ATEIS range of security systems complies with current architectural demands requiring IP and/or fiber-optic networking to cater for any possible PAVA design, however complex. ATEIS responds to Public Address and Voice Alarm requirements as stated in EN54-16, ISO 7240-16 and BS5839/8, with specific attributes for compliance in large installations.

# Consoles & Accessories

## CD8 / CD16

### WALL-MOUNTED MONITORED PAGING CONSOLE

#### CONTROLS AND INDICATORS

- Three LED status indicators
- Activity indicators
- Zone selection buttons
- LED test button
- Fireman microphone with Push To Talk

#### INTERCONNECTIONS

##### Rear

- RJ45 for CAT-5 connection

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
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#### PARTS INCLUDED

Quantities	Components
1	CD8 / CD16
1	CAT-5 cable, 10pin, 1.5 m

#### TECHNICAL SPECIFICATIONS

##### Electrical

###### Power supply

Interface RS-485 (RJ45/CAT-5)

###### DC/battery power requirements

Voltage 18 - 26 VDC

###### Power consumption

CD8 120 mA

CD16 150 mA

##### Performance

Frequency response -3 dB @ 100 Hz to 18 kHz

THD < 1% @ 1 kHz

Output level Max 6 dBu

Noise gate threshold -84 dBu ~ -24 dBu

Attack time 8 ms

Release time 100 ms

Output impedance 100 Ohm

##### Monitoring speaker

Impedance 4 Ohm

Output power 1 W @ 1 KHz

Frequency response -3 dB @ 200 to 12 kHz

##### System Connection

Cable type CAT-5, 10pin (FTP)

Length 100 m

##### Mechanical

###### Dimensions(H x W x D)

CD8 190 x 320 x 130 mm  
(7-1/2" x 12-3/5" x 5-1/10")

CD16 130 x 350 x 130 mm  
(5-1/10" x 13-3/4" x 5-1/10")

###### Weight

CD8 3.6 kg (7.9 lbs)

CD16 4.7 kg (10.4 lbs)

Color RAL7016

##### 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 1100 h Pa

IP rating 30

###### Heat Dissipation

CD8 10 BTU/hr

CD16 12 BTU/hr



## CDPM

### WALL-MOUNTED MONITORED PAGING CONSOLE



The CDPM paging console is a wall-mounted cabinet remote with Access level 2 protection in compliance with EN 54-16. Compatible with ATEIS audio processor, CDPM paging console interconnects over a dedicated RS485 for power, audio and data transmit. The RS485 communication protocol with daisy-chain wiring can support up to 100 m over CAT5 cable connection.

The CDPM supports 2 channels of music input. By pressing the button for selection, the two LED indicators shall light up and activate the music channel. The unit comprises of 24 zones / 24 buttons with Fireman microphone in a metal surface mount wall-box. It provides robust IP-30 protection. Each CDPM contains a PMM PS Master PCB with extension keypad and uses the same architecture as for the PPM AS series of microphone consoles. Each ATEIS audio processor is capable to support up to 31 CDPM units per RS485 port in Master/Slave configuration.

The control buttons represent a single zone or a group of zones. All buttons can be programmed with drag & drop features from the ATEIS Studio software, The PTT button can be programmed for Push To Talk function or for latching functionality.

The unit offers "Hold" and "Busy" LED signals in addition to the zone LED's, and these features allow an easy identification of Selection/Busy signals for users. In addition, to meet the compliance with EN 54-16, POWER, FAULT and EVAC indicators are provided with.

Additional RCA connectors with selection buttons support local audio injection for commercial usage. The RS485 communication protocol offers daisy chaining of up to 300 m on a simple CAT5 cable, and yet makes outlets easy to connect via a standard RJ45 connector.

## SPECIFICATIONS

### CONTROLS AND INDICATORS

- Fireman Microphone
- Power / Music Active / Talk / All Call / Release / Fault / Busy / Hold / EVAC / Indicator
- Talk / Music Selection / All Call / Release Button
- Monitoring Speaker
- Fireman Microphone / Music Input / Connector
- Event Select Key

### INTERCONNECTIONS

#### Rear

- RS485 for CAT-5 connection

### PARTS INCLUDED

Quantities	Components
1	CDPM-XX
1	Junction Box
1	CAT-5 cable, 10pin, 1m

### TECHNICAL SPECIFICATIONS

#### Electrical

##### Mains power supply

Voltage	18~26 VDC
Power consumption	200 mA

#### Performance

Frequency response	-3 dB @ 200 Hz to 20 kHz
THD	< 0.1% @ 1 kHz
Output level Max	-6 dBu
Noise gate threshold	-84 dBu ~ -24 dBu
Attack time	8 ms
Release time	100ms
Output impedance	100 Ohm

#### System connection

Cable type / Length	CAT-5, 10pin (FTP) / 100 m (max.)
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#### Monitoring speaker

Impedance	8 Ohm
Output power	1 W @ 1 KHz
Frequency response	-3 dB @ 200 to 20 kHz

#### Mechanical

Dimensions(H x W x D)	220 x 483 x 68 mm (8-1/3" x 19" x 2-1/3")
Weight	3.9 kg (8.6 lbs)
Color	RAL7016

#### 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 1100 h Pa
IP Rating	30
Heat Dissipation	16 BTU/hr



## PCP

### WALL-MOUNTED MONITORED PAGING CONSOLE

The PCP paging console is a wall-mounted heavy duty remote with Access Level 2 protection in compliance with EN 54-16. Compatible with ATEIS audio processor, PCP paging console interconnects over a dedicated RS485 for power, audio and data transmit. The RS485 communication protocol with daisy-chain wiring can support up to 100 m over CAT5 cable connection.

The unit comprises of 16 zones / 16 buttons with Fireman microphone in a metal surface mount wall-box. It provides robust IP-30 protection. Each PCP contains a PMM PS Master PCB with extension keypad and uses the same architecture as for the PPM AS series of microphone consoles. Each ATEIS audio processor is capable to support up to 31 PCP units per RS485 port in Master/Slave configuration.

The control buttons represent a single zone or a group of zones. All buttons can be programmed with drag & drop features from the ATEIS Studio software, The PTT button can be programmed for Push To Talk function or for latching functionality.

The unit offers "Hold" and "Busy" LED signals in addition to the zone LED's, and these features allow an easy identification of Selection/Busy signals for users. In addition, to meet the compliance with EN 54-16, POWER, FAULT and EVAC indicators are provided with.



## SPECIFICATIONS

### CONTROLS AND INDICATORS

- A telephone styled microphone
- Fault / EVAC / Power / Talk / Hold / All Call / Release / Busy Indicator
- All Call/Release/Talk Button
- Microphone Connector
- Event Select Key

### INTERCONNECTIONS

#### Rear

- RS485 for CAT-5 connection

### PARTS INCLUDED

Quantities	Components
1	PCP-XX
1	Junction Box
1	CAT-5 cable, 10pin, 1m

### TECHNICAL SPECIFICATIONS

#### Electrical

##### Mains power supply

Voltage	18~26 VDC
Power consumption	150 mA

#### Performance

Frequency response	-3 dB @ 200 Hz to 20 kHz
THD	< 0.1% @ 1 kHz
Output level Max	-6 dBu
Noise gate threshold	-84 dBu ~ -24 dBu
Attack time	8 ms
Release time	100 ms
Output impedance	100 Ohm

#### System connection

Cable type / Length	CAT-5, 10pin (FTP) / 100 m (max.)
---------------------	-----------------------------------

#### Monitoring speaker

Impedance	8 Ohm
Output power	1 W @ 1 KHz
Frequency response	-3 dB @ 200 to 20 kHz

#### Mechanical

Dimensions(H x W x D)	220 x 346 x 128 mm (8-3/5" x 13-3/5" x 5")
Weight	3 kg (6.6 lbs)
Color	RAL7016(Main)

#### 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 1100 h Pa
IP Rating	30
Heat Dissipation	12 BTU/hr

## URC / URC 200 / DNM

### PA/VA SYSTEM PERIPHERALS

#### URC *Programmable Remote Controller*



The URC AS can be fully programmed via ATEIS Studio software to adjust every setting: level control, preset, components' adjustments, etc. An elegant OLED for displaying information of parameters or the status. It gives extreme simple design and cost-effective consideration of with only Two buttons [EXIT], [BACK] and a knob on control interface. The RS485 communication protocol allows daisy-chain wiring up to 32 units, providing with a long distance from the audio processor.

#### Mechanical

Dimension = 84mm (W) x 33mm (L) x 84mm (H)  
 3-3/10" (W) x 1-3/10" (L) x 3-3/10" (H)  
 Weight = 0.08KG (0.17 lbs)

#### URC200 / *Ethernet Universal Programmable Remote Controller*



The URC200 is an programmable remote controller (TCP/IP) for the PA/VA system and the IP-media streamers with Terracom IP Media software. The URC200 is powered over IP and easy to integrate with current demands for room controllers like light, curtains, sound and video control. The full color display is easy to read and has a low-power consumption to allow for long lines and multiple devices into one system.

#### Mechanical

Dimension = 140mm (W) x 108mm (H) x 34mm (L)  
 5-1/2" (W) x 4-1/4" (H) x 1-3/10" (L)  
 Weight = 0.35Kg (0.7 lb)



#### DNM-485 / DNM-ENET *Digital Noise Sensing Microphone*

With built-in Electronic Condenser microphone (omnidirectional), DNM enhances the ability to detect the surrounding background noise. With the 0 dB modulation through the Audio Processor, DNM component provides the Automatic Gain Control feature and automatically adjusts the output level of loudspeaker under any situation.

#### INTERCONNECTIONS

Rear	
· DNM-485	RS485 port for 5.08 mm EURO Block (4Pin)
· DNM-ENET	RJ45 for CAT-5 connection (POE)

Connector	
Ethernet port	CAT -5 Cable
RS485 port	5.08 mm EURO Block (4Pin)

#### PARTS INCLUDED

Quantities	Components
1	DNM-485 / DNM-ENET
1	CAT-5 cable, 100 m

System connection	
Cable type	CAT-5 (FTP)
Max Length	100 m

#### TECHNICAL SPECIFICATIONS

Electrical	
Power supply	
Voltage	18-30 VDC (if no POE available)
Battery Holder	250 mA
Performance	
Frequency response	-1 / +1 dBu 50~16 kHz @ 0 dBu,
Sampling rate	48 KHz Only 1 selection
Equivalent	-80 dBu 50~16 kHz @ 600 ohm
THD+N	0.2 % 50~16 kHz @ 0 dBu

Mechanical	
Dimensions	100mm(Diameter) x 130mm(H) 4"(Diameter) x 5-1/10"(H)
Weight	0.13kg (0.28 lbs)
Color	RAL7035

Microphone	
Sensitivity	(60 - 120 dBA) ±5dBA
Frequency response	50Hz to 16kHz @ -3 dB
THD	<0.2% @ 1 kHz
Input	-40 dBu @ 1 kHz
EIN	<-80 dB

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 1100 h Pa
IP Rating	30
Heat Dissipation	20 BTU/hr



## Dialpad

TOUCH DIAL DEVICE

DialPad is a touch dial, cost-effective tabletop controller that connects to IDA8 or ECS audio processor. By both on Local and SIP call, users shall connect to either external telephone set with phone line or DialPad with Ethernet connector.

To activate each item by touch provides users with a user-friendly instruction. DialPad can be operated by using the touch panel -dialing, mute, volume controls, 3-way calling, contact lists, etc. The OLED on the front panel enhances a simple design, and the secured device information for users to monitor, included the connection status and dialing information. All the items can be fully programmed with Drag & Drop features from the system unit GUI software to adjust every custom settings and each item can be operated via ATEIS Studio Software or DialPad simultaneously.

DialPad provides a quick-access use with a long-distance calls and multi-paging. Connecting to Wireless Transceiver device, its capabilities provide the freedom to limit the distance with you from room to room without moving the base unit, with secure, the password protecting to each calls allows you to confirm the callers to whom have the authority for multi-paging.

Wireless Transceiver is a handy remote which connects to IDA8 or ECS audio processor and provides the wireless network for DialPad Device. By connecting to either two kinds of ports (RS485, RS232), the Wireless Transceiver makes it easy to set up and operate with audio central unit and DialPad device. Its capabilities enhance the freedom to limit the distance with you from room to room without moving the base unit.



Dialpad



With Wireless Transceiver

## SPECIFICATIONS

### CONTROLS AND INDICATORS

#### Dialpad Front

- Telephone Keypad / Function Keypad / Panel
- Display / Status LED / Buzzer

#### Dialpad Rear

- RS485 connector / Battery Holder

#### Wireless Transceiver Front

- Power LED / Status LED

#### Wireless Transceiver Rear

- RS485 / RS232 / 24VDC connector

### INTERCONNECTIONS

#### Dialpad Rear

- RS485 for CAT-5 connection (PoE)

#### Wireless Transceiver Rear

- RJ45 for CAT-5 connection (POE)
- RS232 connector

### PARTS INCLUDED

Quantities	Components
1	Wireless TransceiverXX / DialPadXX
1	CAT-5 cable, 500m

### TECHNICAL SPECIFICATIONS

#### Electrical

##### Power supply

Voltage

Dialpad 18 - 24 VDC

Wireless Transceiver 24 VDC

Battery Holder

Dialpad AAA Battery x 4

Power consumption

Wireless Transceiver 30 mA

#### Performance

Panel Display

Dialpad 128\*32 Pixels Monochrome (White)

Buzzer Sound

Dialpad >85dBA @10cm

#### System connection

Cable type / Length

Dialpad CAT-5 (FTP) / 100 m (max.)

Wireless Transceiver CAT-5 (FTP) / RS232

500 m / 12 m

#### Mechanical

Dimensions(H x W x D)

Dialpad 66 x 255 x 108 mm  
(2-3/5" x 10" x 4-1/4")

Wireless Transceiver 30 x 100 x 67 mm  
(1-1/5" x 4" x 2-5/8")

Weight

Dialpad 0.5 kg (1.1 lbs)

Wireless Transceiver 0.1 kg (0.22lbs)

Color

RAL7016

#### 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 1100 h Pa

IP Rating 30

## URGP32I / URGP16I16O

### ALARM INPUT INTERFACE



### MAIN CHARACTERISTICS

- Desktop enclosure
- Secured RS232/RS485 link to controllers and slaves
- 32 alarm inputs for URGP32I
- 16 alarm inputs and 16 alarm outputs for URGP16I16O
- Status and fault indicator
- EN54-16 certified

The URGP 32I is an extension unit for the IDA8-System, LAPG2T and ECS. The URGP32I provides those systems with 32 additional alarm inputs, and the URGP16I16O provides those systems with 16 alarm inputs and 16 alarm outputs. Each input is monitored and can be programmed to trigger a digital audio message into a specific zone or group of zones. The URGP is linked to the System units through a RS232 /RS485 monitored serial link.

The URGP is a contact interface extension unit to the IDA8 System.

### SPECIFICATIONS

#### CONTROLS AND INDICATORS

##### Front

- EVACUATION active indicator
- FAULT indicator
- POWER indicator

#### INTERCONNECTIONS

##### Rear

- RJ45
- RS232

#### CERTIFICATIONS AND APPROVALS

##### REGIONAL CERTIFICATIONS

Europe	Voice Alarm	EN54-16 certified 2012 CE – 0359 according to EN50130 – 4
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#### TECHNICAL SPECIFICATIONS

##### Electrical

##### Mains power supply

Voltage	18~26 VDC
Power consumption	30 mA

##### Performance

##### Evacuation inputs

Contact mode	5 VDC
Voltage mode	-6 dBu
Monitoring resistor	4.7k Ohm

##### System connection

Cable type / Length	CAT-5 (FTP) / 100 m (max.)
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##### Mechanical

Dimensions(H x W x D)	44 x 140 x 75 mm (1-3/4" x 5-1/2" x 3")
Weight	0.5 kg (1.1 lbs)
Color	RAL7016

##### 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 1100 h Pa
IP Rating	30





## List Of Peripherals

Peripherals	Connection	Maximum number (per port)	Device
PSS AS	PDC port t	1	IDA8
PPM-IT5	Ethernet	1 (Active Over Eth.)	IDA8
PPM AS	PDC port	32	IDA8
PSC	PDC port	32	IDA8
CD8 / CD16	PDC port (IDA8)	1	IDA8
CD-Touch	PDC port (IDA8)	1	IDA8
PCP	PDC port	32	IDA8
CDPM	PDC port	1	IDA8
DialPad / Wireless Transceiver	PDC port	1	IDA8
URC-AS	PDC port	32	IDA8
URC200AS	Ethernet	Eth. Limit	IDA8
DNM-485	PDC port	16	IDA8
DNM-Ethernet	Ethernet	Eth. Limit	IDA8
URGP32in / URG16I160	PDC port	1	IDA8

Eth. Limit: The maximum number of IP that can be assigned over the network.

Max. Number: The max. number of peripherals through per PDC port by using a Junction Box.

The devices which connected to PDC port is all powered over RS485 communication protocol.

# Ordering Information



## Ordering Information

Digital Power Amplifier		Remote Wall-mounted Paging Console			
DPAfour-125*	125W x 4	CD-IT5R		Ethernet (Rack-mounted)	
DPAfour-250*	250W x 4	CD-IT5W		Ethernet (Wall-mounted)	
Bridging Power Amplifier		For IDA8			
BPA-1000	1000W x 1	CD-16AS	16 Zone	PCP	16 Zone
BPA-2120	120W x 2	CD-8AS	8 Zone	CDPM	24 Zone
BPA-2240	240W x 2	CD-TOUCH AS	RS485		
BPA-2480	480W x 2	Programmable Remote Controller		Wall-mounted Level Sources Remote Selector	
Mixing Power Amplifier		URC	RS485	RAC 5	5 Steps
MPA-60	60W	URC-200	Ethernet	RAC 8	8 Steps
MPA-120	120W	URC-AS	RS485	Accessories	
MPA-240	240W	URC-200AS	Ethernet	Dialpad	RS485
Touch Panel/Desktop Paging Console		Digital Noise Sensing Microphone			Wireless 2.4GHz
PSS-AS	RS485	DNM-485	RS485	Wireless Transceiver	RF Transmission
PPM-IT5	Ethernet	DNM-ENET	Ethernet	Control Input/Output Interface	
PPM-AS	RS485	Analog Noise Sensing Microphone		URGP-32I20	RS232/485
PSC	RS485	NSM		URGP-16I160	RS232/485

\*order from Rotterdam

Public Address - Voice Alarm

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Loudspeakers



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