Public Address & Voice Alarm

Delivering Your Message

Ver. 3
IDA8-series of Digital Public Address and Voice Alarm products are leading the industry for Emergency Systems. IDA8-series is installed into highly demanding public transportation networks in Europe, 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 applications where scheduled events, background music are an integrated part of the voice-alarm system. Both applications guaranteed for superb quality of sound and intelligibility.

IDA8-series of products are complying to the EN54-16, UL60065, ISO 7240-16 and BS5839/8
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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 PAVA System
Slave Unit – A/B-zoning – Matrix Mode

IDA8S
Networkable PAVA System
Slave Unit – Matrix Mode

IDA8SAB - SW
Networkable PAVA System
Slave Unit – Switch Mode

IDA8SL
Networkable PAVA System
Lo-Z 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. IDABC responds to Public Address and Voice Alarm requirements as stated in EN54-16, UL60065, ISO 7240-16 and BSS839/8, with specific attributes for compliance in large installations.

**CONNECTIVITY:**

The IDABC 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. IDABC 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 5939 part 8. 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 IDABC 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 IDABC through the user-friendly ATEIS Studio GUI. Several messages can be played simultaneously into different zones: up to 4 messages from a single IDABC Controller or a total of 48 messages across an IDABC system (controller with slaves). A built-in loudspeaker on the IDABC allows selective feedback for all sources and 100V output signals. One IDABC can also connect to a maximum up to 31 Slave units. The slave units are available as single zone (IDAB) or with A/B speaker line configurations (IDABSB), or for Lo-Z monitoring (IDABSL).

The IDABC 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 the amplifiers, processing blocks such as compressors and limiters, delay lines, the network and loudspeakers.

The IDABC Controller operates either on 110VAC or 230VAC mains power supply or on a 24V battery power supply for emergency back-up, with automatic switchover. Both power supplies are securely monitored. IDABC 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, 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 priorities for calls to hundreds of zones, satisfying even the most complex public address and emergency requirements. The controller monitors the status of all the equipment in the system, reports status changes and logs the last 999 fault messages in the system. The log can be accessed on the front-panel IDA8C display or on a PC through ATEIS Studio.
IDA8C

NETWORKABLE PAVA 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 / Bypass Monitoring / G. EVAC / G. Fault)

INTERCONNECTIONS

Front
- Fireman 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

<table>
<thead>
<tr>
<th>Country</th>
<th>Voice Alarm</th>
<th>EN54-16 certified 2012 CE – 0359 according to EN50130 – 4</th>
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<tr>
<td>Europe</td>
<td>EN 50121 – 4</td>
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<th>Quantities</th>
<th>Components</th>
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<td>Power cord (type depends on region)</td>
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<td>Set of mounting brackets for 19” rack</td>
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<tr>
<td>1</td>
<td>Set of connectors</td>
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<td>1</td>
<td>ATEIS Studio software GUI</td>
</tr>
<tr>
<td>1</td>
<td>LAN Cable</td>
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</table>

TECHNICAL SPECIFICATIONS

Electrical
Mains power supply
Voltage 230/115 VAC ±15%, 50/60 Hz
Power consumption 48 W

Battery power supply
Voltage 18 - 30 VDC

Performance
Frequency response ±1 dB @ 20 Hz and 20 kHz
Line inputs (Optional audio input card)
Connector 3-pin phoenix
Frequency response ±1 dB @ 20 Hz and 20 kHz
SNR >81 dB
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 dB
THD < 0.02% @ 1 kHz
Signal 0dB
Output impedance <100 ohm

Amplifier lines in 1 x 100V (per channel)
Max rated output power 1000 W (cont. at 40°C)
Frequency response -3 dB @ 50 Hz and 18kHz
Input level 16 dBu

Loudspeaker lines out 2 x (per channel)
Rated load resistance 100 ohm (100 V)
Rated output power 1000 W (cont. at 40°C)

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”)
Weight 5.36 kg (11.8 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

Ordering Information
IDA8C Controller (No ATEIS-NET card)
IDA8C-Lx* Controller with NET-Cx card
IDA8C-Lx* Controller with NET-Cx card & 4 audio inputs
IDA8C-0Lx* Controller with NET-Cx card & 4 audio inputs & 4 audio outputs
IDA8C-2Lx* Controller with NET-Cx card & 8 audio inputs
IDA8C-20Lx* Controller with NET-Cx & 8 audio outputs
IDA8C-2ALx* Controller with NET-Cx card & 2 AES/EBU cards
IDA8C-7Lx* Controller with NET-Cx card & Telephone card
IDA8C-Lx*Gx* Controller with Local & Global NET-Cx card

*L1: with NET-C1, L2: with NET-C2, L3: with NET-C3
L4: with NET-C4
*Lx is for LOCAL and Gx is for GLOBAL
IDA8S

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. Two card slots can be fitted with optional 4-channel analogue audio input/output cards (max two cards per device).

IDA8S Slave units provides 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 for emergency back-up, with automatic switchover. The power supplies is 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 256 priorities for calls to hundreds of zones, satisfying even the most complex public address and emergency 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 IDABC 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
- Each of the 8 zones offers 100W (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
- 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, GEG, Delays, Ducker, Gate, AGC, feedback, filter, inverter, local echo suppressor, mixer
- Ethernet interface for TERRACOM, 3rd party devices, configuration, control, diagnostics and logging
- Incident data record with at least 2047 entries
- Programmable of 4 user levels
- 1 Fault & 1 EVAC relays outputs
- Programmable of 256 priority paging zones
- Export the incident log
- 1U standard 19” rack mounting
- EN54-16 certified
IDAS8S

NETWORKABLE PAVA 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 backup power input
- Fault/EVAC/BYPASS output
- 9 control inputs
- 8 control outputs
- 8 analogue audio mic/line inputs/outputs (Optional)
- 2 system LOCAL-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

PARTS INCLUDED

Quantities | Components
---|---
1 | IDAS8Sx Slave unit
1 | 110/220VAC 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

Performance
- Frequency response: ±1 dB @ 20 Hz and 20 kHz
- 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 lines in 1 x 100V (per channel)
Max rated output power 1000 W (cont. & 40°C)
Frequency response -3 dB @ 50 Hz and 18kHz
Input level 16 dBu

Loudspeaker lines out 1 x (per channel)
Rated load resistance 100 ohm (100 V)
Rated output power 1000 W (cont. at 40°C)

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”)
- Weight 4.2 kg (9.25 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

Ordering Information
- IDAS8S-Lx* Slave Unit with NET-Cx card
- IDAS8S-10Lx* Slave Unit with NET-Cx card & 4 audio inputs & 4 audio outputs
- IDAS8S-20Lx* Slave Unit with NET-Cx & 8 audio outputs
- IDAS8S-22Lx* Slave Unit with NET-Cx & 8 audio inputs
- IDAS8S-23Lx* Slave Unit with NET-Cx card & 2 AES/EBU cards

* L1: with NET-C1, L2: with NET-C2, L3: with NET-C3
  L4: with NET-C4
IDA8 is a third-generation modular system that complies with current architectural demands requiring IP and/or fibreoptic 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 BSS839/8, 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 5939-part 8. 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 provide 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 7.711, 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, compRESSors, 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 switch-over. Both of the power supplies are monitored.

**SECURITY:**

In accordance with EN54-16, UL60065, ISO 7240-16 and BSS839/8, 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 256 priorities, for calls to hundreds of zones, satisfying even the most complex public address and emergency requirements.
IDA8SAB

INSTALLATION NOTES
## IDA8SAB

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

### CONTROLS AND INDICATORS

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</thead>
<tbody>
<tr>
<td>Status LEDs (Network / Bypass Monitoring / Bypass Mode / G. EVAC / System Fault / G. Fault)</td>
</tr>
<tr>
<td>Zone LEDs (EVAC / Fault)</td>
</tr>
<tr>
<td>Power LEDs</td>
</tr>
</tbody>
</table>

### INTERCONNECTIONS

<table>
<thead>
<tr>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC power socket</td>
</tr>
<tr>
<td>24VDC backup power input</td>
</tr>
<tr>
<td>Bypass Mode output</td>
</tr>
<tr>
<td>9 control inputs</td>
</tr>
<tr>
<td>8 control outputs</td>
</tr>
<tr>
<td>8 analogue audio mic/line inputs/outputs (Optional)</td>
</tr>
<tr>
<td>2 system LOCAL-network connections</td>
</tr>
<tr>
<td>8 amplifier in and outputs</td>
</tr>
<tr>
<td>2 connections for back-up amplifiers</td>
</tr>
<tr>
<td>Telephone Card (Optional)</td>
</tr>
<tr>
<td>2 monitored paging console inputs</td>
</tr>
</tbody>
</table>

### CERTIFICATIONS AND APPROVALS

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<tr>
<td>Railway Controller System EN50121 – 4</td>
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<td>USA Safety UL60065</td>
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<th>Quantities</th>
<th>Components</th>
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<tr>
<td>1</td>
<td>IDA8SABx Slave unit</td>
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<tr>
<td>1</td>
<td>Power cord (type depends on region)</td>
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<td>1</td>
<td>Set of mounting brackets for 19” rack</td>
</tr>
<tr>
<td>1</td>
<td>Set of connectors</td>
</tr>
</tbody>
</table>

### TECHNICAL SPECIFICATIONS

#### Electrical
- **Mains power supply**
  - Voltage: 230/115 VAC ±15%, 50/60 Hz
  - Power consumption: 48 W

#### Battery power supply
- **Voltage**: 18 – 30 VDC

#### Performance
- **Frequency response**: ±1 dB @ 20 Hz and 20 kHz
- **Line inputs** (Optional audio input card)
  - **Connector**: 3-pin phoenix
  - **Frequency response**: ±1 dB @ 20 Hz and 20 kHz
  - **SNR**: >81 dB
  - **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 dB
  - **THD**: < 0.02% @ 1 kHz
  - **Signal**: 0dB
  - **Output impedance**: <100 ohm

### Amplifier lines in
- **1 x 100V (per channel)**
- **Max rated output power**: 1000 W (cont. at 40°C)
- **Frequency response**: -3 dB @ 50 Hz and 18kHz
- **Input level**: 16 dBu

### Loudspeaker lines out
- **2 x (per channel)**
- **RATED LOAD RESISTANCE**: 100 ohm (100 V)
- **RATED OUTPUT POWER**: 1000 W (cont. at 40°C)

#### 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”)
- **Weight**: 5 kg (11 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

### Ordering Information
- **IDA8SABB-Lx** Slave Unit with NET-Cx card
- **IDA8SABB-10Lx** Slave Unit with NET-Cx card & 4 audio inputs & audio outputs
- **IDA8SABB-20Lx** Slave Unit with NET-Cx card & 8 audio inputs
- **IDA8SABB-20Lx** Slave Unit with NET-Cx & 8 audio outputs
- **IDA8SABB-2ALx** Slave Unit with NET-Cx card & 2 AES/EBU cards
- **IDA8SABB-Tlx** Slave Unit with NET-Cx & Telephone card

*L1: with NET-C1, L2: with NET-C2, L3: with NET-C3, L4: with NET-C4*
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.

**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
- 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 2047 entries
- Programmable of 4 user levels
- 1 Fault & 1 EVAC relays outputs
- Programmable of 256 priority paging zones
- Export the incident log
- 2U standard 19" rack mounting
- UL listed

**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 256 priorities, for calls to hundreds of zones, satisfying even the most complex public address and emergency requirements.
IDA8 system

IDA8SL

NETWORKABLE PAVA 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

Rear
- 24VDC backup power input
- BYPASS Mode output
- 9 control inputs
- 8 control outputs
- 2 system LOCAL-network connections
- 4 low-impedance amplifier in and outputs
- 1 connection for back-up amplifiers
- 2 monitored paging console inputs

INTERCONNECTIONS

TECHNICAL SPECIFICATIONS

Electrical
Mains power supply
Voltage 230/115 VAC ±15%, 50/60 Hz
Power consumption 48 W

Battery power supply
Voltage 18 - 30 VDC

Performance
Frequency response ±1 dB @ 20 Hz and 20 kHz

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

PARTS INCLUDED

Quantities Components
1 IDA8SLx Slave unit
1 Power cord (type depends on region)
1 Set of mounting brackets for 19" rack
1 Set of connectors

Amplifier lines in 1 x 100V (per channel)
Max rated output power 1500 W (cont. at 40°C)
Frequency response -3 dB @ 50 Hz and 18kHz
Input level 16 dBu

Loudspeaker lines out 1 x (per channel)
Rated load resistance 100 ohm (100 V)
Rated output power 1500 W (cont. at 40°C)

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")
Weight 4.2 kg (9.25 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

CERTIFICATIONS AND APPROVALS

REGIONAL CERTIFICATIONS

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

LISTED E341243
IDA8C-SW

**NETWORKABLE PAVA SYSTEM CONTROLLER – SWITCH MODE**

IDA8C (Switch Mode) requires less number of amplifiers with only 4 audio channels for 4 amplifiers and utilizes with a maximum capacity of 1000 W for each. IDA8C (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. ATEIS local-net, can be a network of one controller and a maximum up to 31 Slave units including IDA8C (Switch Mode) and IDA8C (Matrix Mode) in a local system by users’ preference. 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.

IDA8C (Switch Mode) supports up to 4 sources including EVAC/ Voice/ Music/ Backup. Each zone can be routed to one of the system’s audio channels (EVAC, Music, Voice and Backup). 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. A IDA8C (Switch Mode) shall only require up to 4 channel amplifier and the amplifiers will act as a backup amplifier in case of 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 each zone separately from the fireman microphone on the front panel. In case of evacuation, the zones attenuator are automatically bypassed and the signal output shall be activated when the certain zone is occupied with a source that has a higher priority than the music alarm or microphone paging.

IDA8C (Switch Mode) Controller unit is capable to run an impedance scan of all the components, co-vering 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 in a given configuration. This reference is subsequently stored in the system. Any alterations of this configuration will be reported and logged in an event log file. The custom setting of threshold shall be applied in it, allowing for users to match each circumstance.

All incidents are recorded into a data file which shall be consulted LCD Display Panel at the front panel of the central unit or via PC by using the software of ATEIS Studio global version (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 a PC to be connected. Also, any detected fault shall be signaled by a general fault on the front panel of IDA8C (Switch Mode) Controller unit.

**MAIN CHARACTERISTICS**

- Support a maximum up to 31 slave units in ATEIS Local-Net
- Up to 8000 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
- 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 2047 entries
- Programmable of 4 user levels
- Telephone interface via SIP protocol or telephone line services
- 1 Fault & 1 EVAC relays outputs
- Programmable of 256 priority paging zones
- Export the incident log
- 2U standard 19” rack mounting
- UL listed
IDA8C-SW

NETWORKABLE PAVA 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

### 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)

### TECHNICAL SPECIFICATIONS

#### Electrical
- **Mains power supply**
  - Voltage: 230/115 VAC ±15%, 50/60 Hz
  - Power consumption: 48 W

- **Battery power supply**
  - Voltage: 18 - 30 VDC

#### Performance
- **Frequency response**
  - ±1 dB @ 20 Hz and 20 kHz

- **Line inputs** (Optional audio input card)
  - Connector: 3-pin phoenix
  - Frequency response: ±1 dB @ 20 Hz and 20 kHz
  - SNR: >81 dB
  - THD: < 0.02% @ 1 kHz
  - Input sensitivity: 0 - 66 dBu / 6B steps
  - Input impedance: 10 kohm

- **Line outputs** (Optional audio output card)
  - Connector: 3-pin phoenix
  - SNR: >81 dB
  - THD: < 0.02% @ 1 kHz
  - Signal: 0dB
  - Output impedance: <100 ohm

Amplifier lines in: 4 x 100V
- Max rated output power: 1000 W (cont. at 40°C)
- Frequency response: -3 dB @ 50 Hz and 18kHz
- Input level: 16 dBu

Loudspeaker lines out: 16 (8 zones x 2 A/B)
- Rated load resistance: 100 ohm (100 V)
- Rated output power: 1000 W (cont. at 40°C)

#### 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: 6.2 kg (13.65 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

### Certification

#### REGIONAL CERTIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>Voice Alarm</th>
<th>EN54-16 certified(Pending)</th>
<th>CE – 0359</th>
<th>according to EN50130 – 4</th>
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<tr>
<td>USA</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

*L1: with NET-C1, L2: with NET-C2, L3: with NET-C3, L4: with NET-C4
*Lx is for LOCAL and Gx is for GLOBAL
IDA8SAB (Switch Mode) provides the zones and audio in & out expansion using a secured 48-channel audio and data network over CAT5 or fiber optic. IDA8SAB (Switch Mode) requires less number of amplifiers with only 4 audio inputs / outputs from amplifier. ATEIS local-net, can be a network of one controller and a maximum up to 31 Slave units including IDA8C (Switch Mode) and IDA8C (Matrix Mode) in a local system by users’ preference. 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) supports up to 4 sources including EVAC/ Voice/ Music/ Back up. Each zone can be routed to one of the system’s audio channels (EVAC, Music, Voice and Back up). 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. IDA8SAB (Switch Mode) shall only require up to 4 channel amplifier and the amplifiers will act as a backup amplifier in case of other amplifiers break down. Users shall manually route the signal and three digital messages into the selected zones and adjust the audio level and switch the music (ON/OFF) in each zone separately from the fireman microphone on the front panel. In case of evacuation, the zones attenuator are automatically bypassed. The signal output shall be activated when the certain zone is occupied with a source that has a higher priority than the music alarm or microphone paging.

IDA8SAB (Switch Mode) Controller 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 a PC to be connected. Also, any detected fault shall be signaled by a general fault on the front panel of IDA8SAB-SW Controller unit. 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.
# IDA8SAB- SW

NETWORKABLE PAVA 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

**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

## Interconnections

## Parts Included

<table>
<thead>
<tr>
<th>Quantities</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IDA8SABxx-SW Controller unit</td>
</tr>
<tr>
<td>1</td>
<td>Power cord (type depends on region)</td>
</tr>
<tr>
<td>1</td>
<td>Set of mounting brackets for 19&quot; rack</td>
</tr>
<tr>
<td>1</td>
<td>Set of connectors</td>
</tr>
</tbody>
</table>

## Technical Specifications

### Electrical

**Mains power supply**
- Voltage: 230/115 VAC ±15%, 50/60 Hz
- Power consumption: 48 W

**Battery power supply**
- Voltage: 18 - 30 VDC

### Performance

**Frequency response ±1 dB @ 20 Hz and 20 kHz**

**Line inputs** (Optional audio input card)
- Connector: 3-pin phoenix
- Frequency response: ±1 dB @ 20 Hz and 20 kHz
- SNR: >81 dB
- 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 dB
- THD: < 0.02% @ 1 kHz
- Signal: 0dB
- Output impedance: <100 ohm

### Amplifier lines in
- 4 x 100V

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

### Loudspeaker lines out
- 16 (8 zones x 2 A/B)

- Rated load resistance: 100 ohm (100 V)
- Rated output power: 1000 W (cont. at 40°C)

### 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)
- 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

## Certifications and Approvals

<table>
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</tr>
<tr>
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<td>Safety</td>
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</tr>
</tbody>
</table>

## Ordering Information

- IDA8SAB-SW-Lx*: Slave Unit with NET-Cx card
- IDA8SAB-SW-Lx*: Slave Unit with NET-Cx card & 4 audio inputs
- IDA8SAB-SW-0Lx*: Slave Unit with NET-Cx card & 4 audio outputs
- IDA8SAB-SW-2Lx*: Slave Unit with NET-Cx card & 8 audio inputs
- IDA8SAB-SW-20Lx*: Slave Unit with NET-Cx card & 8 audio outputs
- IDA8SAB-SW-2ALx*: Slave Unit with NET-Cx card & 2 AES/EBU card
- IDA8SAB-SW-TLx*: Slave Unit with NET-Cx card & Telephone card

*L1: with NET-C1, L2: with NET-C2, L3: with NET-C3, L4: with NET-C4
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.

![Equal Mode Configuration](image)

**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 1000 W audio power (at 75-100 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.

![Unequal Mode Configuration](image)

**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**

**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.

![Backup Sharing Mode Configuration](image)

**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]**

![Scenario 1 Diagram](image)
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)]
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 PAVA 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 PAVA 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 IDA8RU, 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,

**IDA8RU-Main**: Switching unit for digital audio processing with paging console interface.

**IDA8RU-CTL**: Switching unit for secured and normal audio IN and OUT contacts.

**IDA8RU-PDC**: Switching unit for auxiliary audio IN and OUT contacts with paging console & telephone line interface.

IDA8RU device is a device supplied with full-redundancy for audio processor. IDA8RU 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 IDA8RU device. IDA8RU device is also capable to monitor the status of audio processor. If primary audio processor breaks down, IDA8RU device will detect automatically and switch to secondary audio processor.
IDA8RU-MAIN / CTL / PDC

IDA8 FULL-REDUNDANCY SWITCHING UNIT

CONTROLS AND INDICATORS

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

INTERCONNECTIONS

IDA8RU-MAIN
- 8 speaker lines, 8 amplifiers, 2 backup amps, 2 PSS 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

IDA8RU-CTL
- 8 x Output contacts, 9 x alarm 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

IDA8RU-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 IDA8RU-xx unit
1 Power cord (type depends on region)

TECHNICAL SPECIFICATIONS

Electrical
Power supply Voltage 24 VDC
Power consumption
IDA8RU-MAIN 600mA
IDA8RU-CTL 200mA
IDA8RU-PDC 350mA

Mechanical
Dimensions (With 19” rack mount brackets)
(H x W x D)
IDA8RU-MAIN 2RU, 88 x 436 x 150 mm (3-1/2” x 17-1/5” x 5-9/10”)
IDA8RU-CTL/PDC 1RU, 44 x 436 x 150 mm (1-3/4” x 17-1/5” x 5-9/10”)

Weight
IDA8RU-MAIN 4.5 kg (10 lbs)
IDA8RU-CTL/PDC 2.5 kg (5.5 lbs)

Mounting 19” rack mount

Color RAL 7016

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

Ordering Information
RU-MAIN, RU-CTL, RU-PDC
ATEIŠ 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. ATEIŠ Net™ has an open-architecture design and interfaces with remote devices such as paging consoles, audio break-in and break-out converters and room controllers, providing the best solution to medium to large-scale installations, such as shopping malls, retail stores, train stations and airports. ATEIŠ 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

- ATEIŠ 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:

ATEIŠ 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 ATEIŠ Net™ networking cards can be installed into the IDA8 Controller and Slave units. Thanks to its loop architecture, the ATEIŠ 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. ATEIŠ global-net, can be a network of more than one controller(Matrix Mode and Switch Mode) and a maximum up to 31 IDA85xx 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 ATEIŠ Global-Net, and each system includes one control unit connecting to 31 slave units in ATEIŠ Local-Net.

The installation of NET-C1 cards (RU45 to RU45) 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 fibre Port A

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

NET-C4, 1x fibre Port B & 1x RJ45 Port A
NET - CX

ATEIS NET SECURED AUDIO NETWORK CARD

TECHNICAL SPECIFICATIONS

Electrical
Battery power supply
Voltage
Power consumption
5 W

Performance
Frequency response
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")

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 hPa

Ordering Information
NET-L*1
NET-L*2
NET-L*3
NET-L*4
NET-G*1–G*4
Same as above

* L = Local Net, G = Global Net

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 reported 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.

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

PARTS INCLUDED

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

CERTIFICATIONS AND APPROVALS

REGIONAL CERTIFICATIONS

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.

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

![Input Audio Board](image)

![Output Audio Board](image)

#### 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.

- 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)
- Euroblock low-voltage disconnectable connectors
- RTO / Overload / Signal Indicators
- -20 to + 20 dB for overload threshold
- -60 to + 20 dB faber range of level
- Level control
- Volume display for each channel
- Mute and bypass control
- Digital transmission can be reach 100 meter
- RoHS compliant

![AES/EBU Card](image)

#### Specialty Cards

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

- 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

![Telephone Card](image)

#### Ordering Information

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AES-EBU CARD</td>
<td>AES/EBU card</td>
</tr>
<tr>
<td>IDA8 TEL</td>
<td>Telephone card</td>
</tr>
<tr>
<td>IDA AUDIO IN</td>
<td>Audio Input board</td>
</tr>
<tr>
<td>IDA AUDIO OUT</td>
<td>Audio output board</td>
</tr>
</tbody>
</table>
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 PAVA/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 IDAB, 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.

![Configuration software diagram](Image)

**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.
ATEİS 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 com ponent.

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.

**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 an excellent performance in a variety of operating environments. Configuring and adjusting the dynamic equalization bands can be easily done by its delected interface.

**Page Control:**

Some applications which are integrated in PAVA 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.

**VOIP:**

IDA8 system, supporting VoIP based on SIP protocol and Audio over IP applications by using PPM-ITS 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.

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**POWERFUL DIGITAL SIGNAL PROCESSING**
DIVA8G2 system is a compact PAVA solution specifically designed for small to medium-scale installations. It has all the essential functionality to comply with EN-54 requirements for Voice Alarm, including full system monitoring, loudspeaker line impedance surveillance, microphone surveillance and monitored interfacing with remote devices.

DIVA8G2 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.
DIVA8G2 system

DIVA8MG2

COMPACT PAVA SYSTEM – MASTER UNIT – SWITCH MODE

MAIN CHARACTERISTICS

- 8-zone system controller with individual volume controls per channel
- 5 audio inputs (2 x line, 1 x MIC/line, 1 x PSS or PSM, 1 x Fireman Mic)
- 1000 Watts maximum load / 100V line outputs per channel amplifier
- Enhanced loudspeaker line surveillance for A/B zoned installations
- 9 monitored logic control inputs, 8 non-monitored logic control inputs
- Ethernet interface for configuration, control, diagnostics and logging
- Digital storage for up to 45 minutes of pre-recorded messaging
- PEQ: 3 bands on inputs, 7 bands on the two outputs channels
- Modbus, notifier, Vox@Net Protocol interface via RS232
- Full monitoring of PSS and PSM paging consoles
- 2 channel audio distribution for Paging and BGM
- Incident data record with up to 2047 entries
- Combined back-up amplifier function.
- Programmable Message Scheduler Events
- 1 Fault relays & 1 EVAC relays outputs
- Low and high pass filtering on inputs
- Programmable of 21 priority levels
- 2U standard 19" rack mounting
- 1 Fault & 1 Evac relays outputs
- Programmable of 4 user levels
- 2" full color TFT screen
- Export the incident log
- 8 Logic relay contacts
- EN54-16 certified

DIVA8G2 system is a compact PAVA solution specifically designed for small to medium-scale installations. It has all the essential functionality to comply with EN 54 requirements for Voice Alarm, including full system monitoring, loudspeaker line impedance surveillance, microphone surveillance and monitored interfacing with remote devices.

DIVA8G2 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 DIVA8G2 Master unit provides enhanced digital audio processing (DSP), a digital message player, a fully monitored fireman’s microphone, amplifier monitoring with switch over to backups and loudspeaker line monitoring for 16 audio lines (8 lines A/B). It can process and route one PSS-G2, CD8-G2 or CD16-G2 microphone console or up to ten cascaded PSM8-V3 paging microphones, along with two 0dB audio inputs and one mic/line input into two different channels (music + voice) using configurable priorities. The DIVA8G2 system utilizes two external amplifier channels with a maximum capacity of 1000 W each.

PRE-PROCESSING:

All audio inputs feature contact and VOX activation and each input is fitted with volume controls and equalizers. Up to 45 minutes of digital messaging can be stored in the unit. These are stored as WAV files and uploaded directly from a PC into the DIVA8MG2. Up to two messages can be played simultaneously in different zones for phased evacuation.

INTERFACING:

DIVA8MG2 has nine monitored alarm inputs which can be individually programmed for specific message/input routing to all or selected channels. Each DIVA8G2 system module has eight output zones with A/B wiring and each zone can be routed manually or automatically to one of the system’s audio channels (music or voice). The number of zones can be extended up to 128 A/B zones with the addition of DIVA8SG2 Slave units (up to a maximum of 15 slave units). The music source can be selected directly from the front panel and switched into each zone separately, also a RS232 port on the rear panel allows third-party control and interfacing.
DIVA8MG2

COMPACT PAVA SYSTEM – MASTER UNIT – SWITCH MODE

REDUNDANCY:

In case of Evacuation, the amplifier music channel can be used as a second alarm channel. Each DIVA8G2 system requires only one 2-channel amplifier (one channel for music, one for voice). The music amplifier will also act as a backup amplifier in case of voice amplifier failure. Each channel can handle up to 1000W audio power (at 100V).

Users shall manually route the Fireman microphone signal, three digital messages into selected zones, adjust the audio level and switch (ON/OFF) the music in each zones separately from the front-panel of DIVA8MG2 (Master unit). In case of evacuation, the zone attenuator are automatically bypassed. One output contact per zone can be activated each time the zone is occupied with a source that has higher priority than the music (alarm or microphone paging).

SECURITY:

In accordance with EN54-16, ISO 7240-16 and BSS839/8, all DIVA8G2 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 master unit monitors the status of all the equipment in the system, reports status changes and stores the last 999 fault messages in the system. This log can be accessed on the master unit display or on a PC using the DIVA8G2 control software.

DIVA8G2 system units operate either on 110VAC or 230VAC mains power supply or on a 24V battery power supply for emergency back-up, with automatic switchover. Both power supplies are monitored.

INSTALLATION NOTES:

INTERCONNECTIONS:

DIVA8MG2 Master unit and DIVA8SG2 Slave unit with 4 amplifier channels
DIVA8G2 system

DIVA8MG2
COMPACT PAVA SYSTEM – MASTER UNIT – SWITCH MODE

CONTROLS AND INDICATORS

<table>
<thead>
<tr>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” full color TFT screen</td>
<td>Voltage selector</td>
</tr>
<tr>
<td>Zone selection / Music control / EVAC / Reset buttons</td>
<td>Voltage selector</td>
</tr>
<tr>
<td>Fireman microphone</td>
<td>Fireman microphone</td>
</tr>
<tr>
<td>VACIE indicators</td>
<td>Fireman microphone</td>
</tr>
<tr>
<td>Zone attenuator knobs</td>
<td>Fireman microphone</td>
</tr>
<tr>
<td>Status indicators (Power / G. Fault / System Fault / EVAC / Bypass Mode)</td>
<td>Fireman microphone</td>
</tr>
</tbody>
</table>

INTERCONNECTIONS

<table>
<thead>
<tr>
<th>Front</th>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fireman microphone</td>
<td>AC power socket</td>
</tr>
<tr>
<td>24VDC backup power input</td>
<td>24VDC backup power input</td>
</tr>
<tr>
<td>9 EVAC inputs</td>
<td>8 control inputs</td>
</tr>
<tr>
<td>8 control inputs</td>
<td>2 state inputs (open contact &amp; close contact)</td>
</tr>
<tr>
<td>8 control outputs</td>
<td>8 control outputs</td>
</tr>
<tr>
<td>Evac &amp; Fault contacts</td>
<td>8 control outputs</td>
</tr>
<tr>
<td>1 remote Fireman’s mic input</td>
<td>1 remote Fireman’s mic input</td>
</tr>
<tr>
<td>Music / Line Input</td>
<td>Music / Line Input</td>
</tr>
<tr>
<td>4 analogue line audio inputs</td>
<td>4 analogue line audio inputs</td>
</tr>
<tr>
<td>Ethernet connection</td>
<td>Ethernet connection</td>
</tr>
<tr>
<td>8 zone 100 Volt outputs (A+B)</td>
<td>8 zone 100 Volt outputs (A+B)</td>
</tr>
<tr>
<td>RS232 Connector</td>
<td>RS232 Connector</td>
</tr>
<tr>
<td>1 monitored paging console input</td>
<td>1 monitored paging console input</td>
</tr>
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</table>

CERTIFICATIONS AND APPROVALS

REGIONAL CERTIFICATIONS

<table>
<thead>
<tr>
<th>Europe</th>
<th>Voice Alarm</th>
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<tr>
<td>EN54-16 certified 2012</td>
<td>EN54-16 certified 2012</td>
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<tr>
<td>CE – 0359</td>
<td>CE – 0359</td>
</tr>
</tbody>
</table>

PARTS INCLUDED

<table>
<thead>
<tr>
<th>Quantities</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DNA8MG2 Master unit</td>
</tr>
<tr>
<td>1</td>
<td>Fireman microphone</td>
</tr>
<tr>
<td>1</td>
<td>Power cord (type depends on region)</td>
</tr>
<tr>
<td>1</td>
<td>Set of connectors</td>
</tr>
<tr>
<td>1</td>
<td>Set of 19” rack mount brackets</td>
</tr>
<tr>
<td>1</td>
<td>DNA8G2-system software</td>
</tr>
<tr>
<td>1</td>
<td>LAN Cable</td>
</tr>
</tbody>
</table>

TECHNICAL SPECIFICATIONS

Electrical

Mains power supply
Voltage 230/115 VAC ±15%, 50/60 Hz
Power consumption 48 W

Battery power supply
Voltage 18 - 30 VDC

Performance

Frequency response -3dB @ 20 Hz and 20 kHz

Audio Line inputs (Optional audio input card)
Connector 2x2 RCA (un-balanced)
Frequency response -3dB @ 20 Hz and 20 kHz
SNR > 76 dB (Line-level)
> 78 dB (Mic-level)
THD < 0.02% @ 1 kHz
Input sensitivity 770 mV (0 dBu – -60 dBu)
Input impedance 10 kohm

Fireman microphone
Connector 5-pin locking-DIN
Frequency response -3dB @ 20 Hz and 20 kHz
SNR > 70 dBu
THD < 1% @ 1 kHz @ 8ohm
Signal -40 to -30 dBu
Output impedance 10 kohm

Monitor loudspeaker
Frequency response -3dB @ 200 Hz and 20 kHz
SNR > 70 dB
THD < 5% @ 1 kHz @ 8ohm
Signal 16 dBu

Amplifier lines in 2 x 100V
Max rated output power 1000 W (cont. at 40°C)
Frequency response -3 dB @ 50 Hz and 18 kHz
Input level 16 dBu

Speaker lines out 16 (8 zones x 2 A/B)
Rated load resistance 100 ohm (100W)
Rated power 1000 W (cont. at 40°C)

Mechanical

Dimensions (With 19” rack mount brackets)
(H x W x D) 2RU, 88 x 483 x 338 mm
(3-1/2” x 19” x 13-3/10”)
Weight 7.5 kg (16.5lbs)
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

Ordering Information
DNA8MG2 Master unit

CE 12
0359-CBP-0140
DIVA862 system

DIVA8SG2

COMPACT PAVA SYSTEM – SLAVE UNIT – SWITCH MODE

DIVA862 system is a compact PAVA solution specifically designed for small to medium-scale installations. It has all the essential functionality to comply with EN 54 requirements for Voice Alarm, including full system monitoring, loudspeaker line impedance surveillance, microphone surveillance and monitored interfacing with remote devices.

DIVA862 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 DIVA8SG2 Slave unit is an extension unit for the DIVA8MG2 Master. It increases the number of paging zones by 8 zones for each slave unit added in the system. Up to 15 slave units can be added per DIVA862 system and must be used in conjunction with the DIVA8MG2 Master. A complete DIVA862 system provides up to 128 zones (A/B). Slave units are linked to the system master via shielded CAT-5 cable (max. length 100m).

The DIVA8SG2 Slave handles the same 1000 W power capacity as the master unit (at 100V) on each amplifier channel (music + voice). Each zone can be routed manually or automatically to either channel. For maximum flexibility connected amplifiers can distribute their power across multiple slaves or additional amplifier channels can be added to the system to assist where more output power is needed. The 100 V amplifier signal is simply linked to the slaves to create a 100 V signal bus.

INTERFACING:

DIVA8SG2 extends the number of input and output contacts available in the system. It includes nine alarm inputs triggered either by dry contact or relay (software-selectable), eight logic contact inputs, two external fault contact inputs and eight contact outputs.

REdundancy:

In case of Evacuation, the amplifier music channel can be used as a second alarm channel. Each DIVA862 system requires only one 2-channel amplifier (one channel for music, one for voice). The music amplifier will also act as a backup amplifier in case of voice amplifier failure. Each channel can handle up to 1000 W audio power (at 100 V).

Users shall manually route the Fireman microphone signal, three digital messages into selected zones, adjust the audio level and switch (ON/OFF) the music in each zones separately from the front-panel of DIVA8MG2 (Master unit). In case of evacuation, the zone attenuators are automatically bypassed. One contact output per zone can be activated each time once the zone is occupied with a source that has higher priority than the music (alarm or microphone paging).

SECURITY:

In accordance with EN54-16, ISO 7240-16 and BS5839/8, all DIVA862 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 master unit monitors the status of all the equipment for the system, reports status changes and stores the last 2047 incident in the system. This log can be accessed on the master unit display or on a PC using the DIVA862 control software.

DIVA862 system units operate either on 110VAC or 230VAC mains power supply or on a 24V battery power supply for emergency back-up, with automatic switchover. Both power supplies are monitored.

MAIN CHARACTERISTICS

- 2 channel audio distribution for Paging and BGM combined back-up amplifier function
- Ethernet interface for configuration, control, diagnostics and logging via DIVA8MG2
- 9 monitored logic control inputs, 8 non-monitored logic control inputs
- 1000 Watts maximum load / 100V line outputs per channel amplifier
- Enhanced loudspeaker line surveillance for A/B-zoned installations
- Full monitoring of P5S and PSM paging consoles
- 1 Fault relays & 1 EVAC relays outputs
- 1U standard 19” rack mounting
- 8 Logic relay contacts
- EN54-16 certified
INSTALLATION NOTES:

The DIVA8MG2 Master unit and DIVA8SG2 Slave unit are designed for entry level solutions. It provides a cost-effective system when there’s only paging requirement or paging with BGM. The DIVA8G2 System concept utilizes switched audio distribution from a single amplifier source to up to 128 loudspeaker groups. DIVA8MG2 Master unit and DIVA8SG2 Slave unit have 4 different system solutions.

1. Block-diagram (the upper one)

Require only 2 amplifiers DIVA8MG2 Master unit and DIVA8SG2 Slave unit in SINGLE CHANNEL mode shows how DIVA8MG2 Master unit and DIVA8SG2 Slave unit are connected to the amplifiers and to the loudspeaker lines using multiple slaves.

LEFT: SINGLE-audio for Paging/Alert and Backup for small loads. Each channel can handle up 1000 W audio power (at 75-100 V) and be supplied not only for the master unit but also the slave units in each zone. **Note:** The backup amplifier must have the same power capacity as the Paging/Alert amplifier.

RIGHT: SINGLE-audio for Paging/Alert and Backup for higher loads. Requires and processes 0 dB audio outputs and handle up 3000 W audio power (at 75-100 V) from the DIVA8M Master unit to the DIVA8S slave units, feeding into the additional amplifiers. The system needs 1 Back-up amplifier to run the multiple DNA master and slave units. **Note:** The Backup amplifier must have the same power capacity as the Paging/Alert amplifier in the system.

2. Block-diagram (the lower one)

DIVA8MG2 Master unit and DIVA8SG2 Slave unit in DUAL CHANNEL mode shows how DIVA8MG2 Master unit and DIVA8SG2 Slave unit are connected to the amplifiers and to the loudspeaker.

LEFT: DUAL-audio for Paging/Alert/BGM and Backup for small loads. Each channel can handle up 1000 W audio power (at 75-100 V) and be supplied not only for the master unit but also the slave units in each zone. **Note:** The BGM/Backup amplifier must have the same power capacity as the Paging/Alert amplifier in case of amplifier failure.

RIGHT: DUAL-audio for Paging/Alert/BGM and Backup for higher loads. Requires and processes 0 dB audio outputs and handle up 3000 W audio power (at 75-100 V) from the DIVA8M Master unit to the DIVA8S slave units, feeding into the additional amplifiers. In this configuration, amplifiers provide paging and music in individual zones simultaneously. **Note:** The BGM/Backup amplifier must have the same power capacity as the Paging/Alert amplifier in the system.
DIVA8G2

COMPACT PAVA SYSTEM – SLAVE UNIT – SWITCH MODE

CONTROLS AND INDICATORS

- Front
  - Zone selection buttons
  - Zone status / Power indicators
  - VACF indicators (EVAC / Fault / Alert / Page / Selected)

- Rear
  - AC power socket
  - 24VDC backup power input
  - 9 EVAC inputs
  - 8 control inputs
  - 2 state inputs (open contact & close contact)
  - Master to Slave link
  - 8 zone 100 Volt outputs (A+B)
  - Terminator switch

INTERCONNECTIONS

- Amplifier lines in
  - 2 x 100 V

PARTS INCLUDED

<table>
<thead>
<tr>
<th>Quantities</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DIVA8G2 Slave unit</td>
</tr>
<tr>
<td>1</td>
<td>Power cord (type depends on region)</td>
</tr>
<tr>
<td>1</td>
<td>Set of connectors</td>
</tr>
<tr>
<td>1</td>
<td>Set of 19” mounting brackets</td>
</tr>
</tbody>
</table>

TECHNICAL SPECIFICATIONS

- Electrical
  - Mains power supply
    - Voltage: 230/115 VAC ±15%, 50/60 Hz
    - Power consumption: 35 W
  - Battery power supply
    - Voltage: 18 - 30 VDC

- Performance
  - Frequency response: -3 dB @ 20 Hz and 20 kHz

- Amplifier lines in
  - 2 x 100 V

- Max rated output power
  - 1000 W (cont. at 40°C)

- Frequency response
  - -3 dB @ 50 Hz and 18 kHz

- Input level
  - 16 dBu

- Loudspeaker lines out
  - 16 (8 zones x 2 A/B)

- Rated load resistance
  - 100 ohm (100 V)

- Rated power
  - 100 W (cont. at 40°C)

- Mechanical
  - Dimensions (With 19” rack mount brackets)
    - (H x W x D): 1RU, 44 x 483 x 277 mm
      - (1-3/4” x 19” x 10-9/10”)

- Weight
  - 3.9 kg (8.6 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

CERTIFICATIONS AND APPROVALS

- Regional Certifications
  - Europe: Voice Alarm EN54-16 certified 2012
    - CE – 0359
    - according to EN50130 – 4

- Ordering Information
  - DIVA8G2 Slave unit
DPAfour (Digital Power Amplifier), SPA (Security Power Amplifier) and BPA (Basic 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.
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

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 DIVA8G2 and 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.

**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 DIVA8G2 or IDA8 systems
- Supervision of the amplifiers through DIVA8G2 or IDA8 systems
- Back up amplifier switching through DIVA8G2 or IDA8 systems
- Loudspeaker line monitoring with DIVA8G2 or IDA8
- Output bridging for higher power

**DIVA8G2 & DPA Wiring example**

*If DPA channels are bridged, gain settings should be set at equal level for both channel 1&2 and/or 3&4.

**IDA8 & DPA Wiring example**
### 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 |

### Parts Included

<table>
<thead>
<tr>
<th>Quantities</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DPA xxxx Digital Power Amplifier</td>
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<tr>
<td>1</td>
<td>Power cord</td>
</tr>
<tr>
<td>1</td>
<td>Set of connectors</td>
</tr>
</tbody>
</table>

### Technical Specifications
#### Electrical
- **Mains supply power**
  - Voltage: 230/115 VAC ±15%, 50/60 Hz
  - Power consumption**: standby - idle* - Pmax (per CH.)
    - DPA4125: 1 W – 38 W – 600 W
    - DPA4250: 1 W – 44 W – 1169 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_max (per CH.)
  - DPA4125: 0.03 A – 1.45 A – 22.5 A
  - DPA4250: 0.03 A – 1.65 A – 43.85 A
  - **(Total Mains-power consumption @ 230 VAC)**
  - *(Alarm cycle + 10 V pilot-tone @ 24 VDC)*

#### Performance
- **Line inputs**
  - 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**
    - DPA4125
    - Rated load resistance: 80 ohm (100 V)
    - Rated load capacitance: 62.5 nF (100 V)
    - Rated output power (per channel): 125 W (cont. at 40°C)
    - Two channels bridged: 250 W (cont. at 40°C)

#### 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
- DPA4125: 14 kg (31 lbs)
- DPA4250: 18 kg (40 lbs)

#### Ordering Information
- DPAfour125, Digital Power Amplifier
- DPAfour250, Digital Power Amplifier

#### 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

---

![CE Mark](image)
There are two types of power amplifier units in the SPA-PWA product range. The overall power rating is 2x120 or 2x240 watts. The power amplifiers can be set to 100 V, 70 V and 8 Ohm output tapings. They have short-to-ground, short-circuit detection and line-impedance surveillance up to 5% deviation using the DIVA8G2 and IDA8 range of products for loudspeaker-line surveillance.

They support both single-spure and redundant loop cabling (A/B). The amplifiers have a changeover facility for spare power amplifier switching. Both features are facilitated by the DIVA8G2 and IDA8 controllers and slaves. The amplifiers have a 24 VDC back-up supply input.

FUNCTIONS:

The power amplifiers receive line-level input signals from the DIVA8G2 and IDA8 controllers and slaves. The display panel will show the VU-meter is reading data when the EN54-16 default switch is inhibited.
## SPA
### SECURITY POWER AMPLIFIERS

### CONTROLS AND INDICATORS
- LED VU metering
- Status indicators for: Overload, Temperature control, Battery and Mains

### INTERCONNECTIONS
**Rear**
- Rotary volume control
- Mains switch
- AC power socket
- 24VDC backup power input
- Four line inputs
- 100 V, 70 V or 8 ohm outputs (for each amplifier channel)

### CERTIFICATIONS AND APPROVALS

#### REGIONAL CERTIFICATIONS

<table>
<thead>
<tr>
<th>Country</th>
<th>Voice Alarm</th>
<th>EN54-16 certified 2012 CE 0359 according to EN50130 - 4</th>
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<tr>
<td>Europe</td>
<td>Voice Alarm</td>
<td>EN54-16 certified 2012 CE 0359 according to EN50130 - 4</td>
</tr>
</tbody>
</table>

### TECHNICAL SPECIFICATIONS
#### Electrical
- **Mains power supply**
  - Voltage: 220 VAC ±10%, 50 Hz
  - Power consumption: standby - idle* - P_max (per CH)
    - SPA2120: 5 W – 12 W – 290 W
    - SPA2240: 5 W – 12 W – 550 W
- **(Total Mains-power consumption)**
- *Idle: Measured with 10 Volt surveillance tone on the output.

- **Battery power supply**
  - Voltage: 45-48 VDC
  - Power consumption:
    - SPA2120: 0.09 A – 0.16 A – 4.05 A
    - SPA2240: 0.1 A – 0.21 A – 7.79 A
- **(Per ch. @ 48 VDC)**
- *(Alarm cycle + 10 V pilot-tone @ 48 VDC)*

#### Performance
- **Line inputs**: 2 x (One per channel)
- **Connector**: 3-pin XLR and 3-pin phoenix (electronically balanced)
- **Frequency response**: +/−3 dB @ 40 Hz and 20 kHz
- **SNR**: > 86dB @ 1 kHz at full power
- **THD**: < -1% @ 1 kHz
- **Input range**: -6 dBV to 6 dBV / 770mV
- **Input impedance**: 22k Ohm

- **Loudspeakers outputs**
  - SPA2120
    - Rated load resistance: 83 Ohm (100 V); 41 Ohm (70 V)
    - Rated load capacitance: 60 nF (100 V); 125 nF (70 V)
    - Rated output power (per channel): 120 W (cont. at 40°C)
  - SPA2240
    - Rated load resistance: 40 Ohm (100 V); 20 Ohm (70 V)
    - Rated load capacitance: 125 nF (100 V); 250 nF (70 V)
    - Rated output power (per channel): 240 W (cont. at 40°C)
- **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) @10 dB of rated output

### Mechanical
- **Dimensions (For 19'' rack use with brackets)**
  - SPA2120: 2RU, 88 x 425 x 305 mm
    - (3-1/2'' x 16-3/4'' x 12'')
  - SPA2240: 2RU, 88 x 425 x 402 mm
    - (3-1/2'' x 16-3/4'' x 15-4/5'')
- **Weight**
  - SPA2120: 12.3 kg (27.1 lbs)
  - SPA2240: 18.5 kg (40.8 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

### Ordering Information
- SPA2120
- SPA2240
**BPA**

**MAIN CHARACTERISTICS**

- 2 audio outputs for BPA2120, 2240 and 2480 (100 V / 50 V / 8 Ohm selectable outputs)
- Fault reporting outputs
- Two audio inputs with gain-set
- Supervision of amplifiers through DVA8G2 or IDA8 systems
- Advanced audio processing for each amplifier channel through DVA8G2 or IDA8 systems
- Amplifier supervision and spare amplifier switching through DVA8G2 and IDA8 systems
- Loudspeaker line and loudspeaker supervision through DVA8G2 and IDA8 systems

The BPA is a 2RU 19" rack-mountable, 2-channel amplifier, transformer isolated for 100 V, 50 V and 8 Ohm distributed loudspeaker systems. There are three models in the coverage of BPA:
- BPA8060: 8 x 60 W
- BPA2120: 2 x 120 W
- BPA2240: 2 x 240 W
- BPA2480: 2 x 480 W

The BPA amplifier has a 230 VAC mains supply input and a 48 VDC battery backup input which allows it to be used in combination with a battery backup system for maximum availability and reliability in an emergency evacuation system. BPA amplifiers have short-to-ground, short-circuit detection and line-impedance surveillance up to 5% deviation using the DVA8G2 or IDA8 systems for loudspeaker-line surveillance. They support both single-spure and redundant loop cabling (A/B) and have a switchover facility that automatically reroutes power to a backup amplifier (if present) via the SONAES charger in the event of failure. BPA amplifiers have a rear-panel selector switch for amplifier monitoring according to EN 54-16.
**Amplifiers**

**BPA**

**BASIC POWER AMPLIFIERS**

### CONTROLS AND INDICATORS
- LED VU metering
- Status indicators for: Overload, Temperature control, Battery and Mains

### INTERCONNECTIONS
- **Rear**
  - Rotary volume control
  - Mains switch at the rear of the device
  - AC power socket
  - 24VDC backup power input
- Two line inputs
- 100 V, 50 V or 8 ohm outputs
  (for each amplifier channel)

### REGIONAL CERTIFICATIONS

| Europe | Voice Alarm | EN54-16 certified 2012 CE – 0359 according to ENS0130 – 4 |

### PARTS INCLUDED

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<tr>
<th>Quantities</th>
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<td>1</td>
<td>BPA 2xx Basic Power Amplifier</td>
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<tr>
<td>1</td>
<td>Power cord</td>
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<td>Set of mounting brackets for 19&quot; rack</td>
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<tr>
<td>1</td>
<td>Set of connectors</td>
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<tr>
<td>1</td>
<td>Set of feet</td>
</tr>
</tbody>
</table>

**Ordering Information**

- BPA 8060 (8 x 60 W), BPA 2120 (2 x 120 W),
- BPA 2240 (2 x 240 W), BPA 2480 (2 x 480 W)

### TECHNICAL SPECIFICATIONS

#### Electrical
- **Mains supply power**
  - Voltage: 230 VAC ±10%, 50/60 Hz
  - Power consumption**: standby - idle* - Pmax (per CH.)
    - BPA8060: 5 W – 10 W – 100 W
    - BPA2120: 5 W – 11 W – 295 W
    - BPA2240: 5 W – 11 W – 550 W
    - BPA2480: 5 W – 13 W – 1000 W
  - **(Total Mains-power consumption)**
  - *Idt: Measured with 10 Volt surveillance tone on the output.

#### Battery power supply
- **Voltage**
  - BPA ALL TYPES: 48-53 VDC
- **Power consumption**: standby - idle* - Pmax (per CH.)
  - BPA8060: 0.2 A – 0.4 A – 3.4 A
  - 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
  - **(Per ch. @ 48 VDC)**
  - *(Alarm cycle + 10 V pilot-tone @ 48 VDC)*

#### Performance
- **Line inputs**
  - 2 x (One per channel)
  - 8 x for BPA8060
- **Connector**
  - 3-pin XLR and 3-pin phoenix (electronically balanced)
- **Frequency response**
  - +/-3 dB @ 50 Hz and 18 kHz
- **SNR**
  - > 85dB @ 1kHz at full power
- **THD**
  - < 0.1% @ 1 kHz
- **Input range**
  - -6 dBV to 6 dBV / 770mV
- **Input impedance**
  - 22k ohm

#### Loudbreakers outputs
- **BPA 8060**
  - 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)

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<th>Loudspeakers outputs</th>
<th>BPA 2120</th>
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<td><strong>Rated load resistance</strong></td>
<td>100 Ohm (100 V); 50 Ohm (70 V)</td>
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<tr>
<td><strong>Rated load capacitance</strong></td>
<td>60 nF (100 V); 125 nF (70 V)</td>
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<tr>
<td><strong>Rated output power</strong></td>
<td>120 W (1 min. at 40°C) (per CH)</td>
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<table>
<thead>
<tr>
<th>Loudspeakers outputs</th>
<th>BPA 2240</th>
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<tbody>
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<td><strong>Rated load resistance</strong></td>
<td>40 ohm (100 V); 20 ohm (70 V)</td>
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<tr>
<td><strong>Rated load capacitance</strong></td>
<td>125 nF (100 V); 250 nF (70 V)</td>
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<tr>
<td><strong>Rated output power</strong></td>
<td>240 W (1 min. at 40°C) (per CH)</td>
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<table>
<thead>
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<th>Loudspeakers outputs</th>
<th>BPA 2480</th>
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<tbody>
<tr>
<td><strong>Rated load resistance</strong></td>
<td>20 ohm (100 V); 10 ohm (70 V)</td>
</tr>
<tr>
<td><strong>Rated load capacitance</strong></td>
<td>250 nF (100 V); 500 nF (70 V)</td>
</tr>
<tr>
<td><strong>Rated output power</strong></td>
<td>480 W (1 min. at 40°C) (per CH)</td>
</tr>
</tbody>
</table>

### Mechanical
- **Dimensions** (For 19" rack use with brackets)
  - (H x W x D)
  - BPA8060 / BPA 2120: 2RU, 88 x 430 x 375 mm
  - / BPA2240: (3-1/2" x 17" x 14-3/4")
  - BPA2480: 2RU, 88 x 430 x 430 mm
  - (3-1/2" x 17" x 17")

### Weight
- BPA8060: 12.7 kg (27.9 lbs)
- BPA2120: 13.7 kg (30.2 lbs)
- BPA2240: 16.2 kg (35.7 lbs)
- BPA2480: 20.5 kg (45.1 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
SONAE5

CHARGER AND MONITORING UNIT - EN 54-4

The SONAE5 series of battery chargers (24 VDC) are designed for Voice Alarm System. The battery chargers are microprocessor based devices that have been designed to charge lead-acid batteries (back-up batteries connected to the Voice Alarm System) and, simultaneously, to provide power to auxiliary devices such as the DIN852 and ID88 system controllers.

The SONAE5 battery chargers, 6/40 and 12/150, are EN54-4 certified. The maximum charging current is 6 or 12 A. The battery charger is two rack units high, and has to be installed in a 19” rack. Maximum battery capacity 114 or 225 AH. The SONAE5 comes without batteries.

OVERVIEW:

To meet the secured power back-up system need, determining the exact conditions and the amount of battery back-up for a system is much complex than other applications. Public Address / Voice Alarm system does not draw a constant current. The standard defines a standby time and an evacuation time. In this case, it is crucial to pick a battery back-up that shall supply the minimum amount of power for a set amount of time. With SONAE5 battery chargers, it provides you with a battery calculator program which determines the exact capacity.

REGULAR PROCEDURE AS FOLLOWS:

1. Determine the standby / evacuation current and the amount of battery back-up of the system.
2. Detect and enhance the standby / evacuation current simultaneously for 24 hours.
3. 24 Hours discharge capacity of the battery.
## REGIONAL CERTIFICATIONS

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<th>Europe</th>
<th>Voice Alarm</th>
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## PARTS INCLUDED

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<th>Quantities</th>
<th>Components</th>
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<td>SONEAS 6/40A or SONEAS 12/150A</td>
</tr>
<tr>
<td>1</td>
<td>Set of connectors</td>
</tr>
</tbody>
</table>

## TECHNICAL SPECIFICATIONS

### Electrical

- **Mains power supply**
  - Voltage: 230 V AC ±15%, 50/60 Hz
  - Power consumption: 380 W at Full load

- **Battery power supply**
  - Voltage: 24 V DC
  - Maximum charging current:
    - SONEAS 6/40: 6 A
    - SONEAS 12/150: 12 A

### Outputs

- **Main for amplifiers**
  - SONEAS 6/40: max. 40 A for 5 outputs
  - SONEAS 12/150: max. 150 A for 9 outputs

- **Auxiliary for controllers**: 3 x

- **Maximum current**: 5 A

### Batteries

- **2x12 V, 24 to 225AH**

### Brands

- Yuasa NPL Series
- Power-Sonic GB Series
- ABT TM Series
- EnerSys VE Series
- Effektia BTL Series
- Long GB Series

### Mechanical

- **Dimensions** (With 19” rack mount brackets)
  - (H x W x D): 1RU, 44 x 483 x 310 mm
  - (1-3/4” x 19” x 12”)

### Weight

- **SONEAS 6/40**: 4.9 kg (10.8 lbs)
- **SONEAS 12/150**: 6 kg (13 lbs)

### Mounting

- 19” - rack mount

### Color

- RAL7016

### Environmental

- **Operating temperature**: -5°C – 45°C (23°F – 113°F)
- **Storage temperature**: -20°C – 85°C (-4°F – 185°F)
- **Relative humidity**: 20% to 95% (Non-Condensing)
- **Air pressure**: 600 to 1100 h Pa

### Ordering Information

- **SONEAS 6/40**
- **SONEAS 12/150**
Consoles and Accessories

PSS AS / PSS G2 / PSS G2E / PPM-IT5

FULL COLOR TOUCH-SCREEN SECURE PAGING CONSOLE

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 and the PSS G2 are 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

PSS G2: Used with DIVA8G2 system controllers

PSS G2E: Used with DIVA8G2 system controllers and can be powered by Ethernet.

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.

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 t / 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)

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.
PSS AS / PSS G2 / PSS G2E / 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**
- **EUROPE**
  - Voice Alarm
  - EN54-16 certified 2012
  - CE – 0359
  - according to EN50130 – 4

**TECHNICAL SPECIFICATIONS**

**Electrical**
- **Mains power supply**
  - Voltage: 18–30 VDC (PoE: 44–57 VDC)
  - Power consumption: 250 mA

**Performance**
- **Frequency response**
  - PSS AS/G2/G2E: -3 dB @ 200 Hz to 8 kHz
  - PPM-IT5: -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**
  - PSS AS/G2/G2E: 3.5 mm mini-jack
  - PPM-IT5: 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

**Ordering Information**
- PSS AS
  - Touch screen paging console for IDA8
- PSS G2 / PSS G2E
  - Touch screen paging console for DNA8G2
- PPM-IT5
  - Touch screen paging console for IDA8/DNA8G2

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**Parts Included**

<table>
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<tr>
<th>Quantities</th>
<th>Components</th>
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<td>CAT-5 cable, 1.5 m</td>
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PPM AS / PSM

DESKTOP PAGING CONSOLES

PPM is a unidirectional addressable condenser paging microphone compatible with IDA8 and DIVA8 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 is a unidirectional addressable condenser paging microphone compatible for IDA8 and DIVA8 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 two 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

PSM: Used with DIVA8 system controllers

PPM-SP, PPM G2: Used with ATEIS Audio Processor, LAPG2T and UAPG2
### Controls and Indicators
- Three LED status indicators
- Activity indicators
- Zone selection buttons
- Gooseneck microphone
- Monitor speaker

### Technical Specifications

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</tr>
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</tr>
</tbody>
</table>
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.

---

**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 (PoE)

**PARTS INCLUDED**

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<tr>
<th>Quantities</th>
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<tr>
<td>1</td>
<td>Junction Box</td>
</tr>
<tr>
<td>1</td>
<td>CAT-5 cable, 10pin, 1.5 m</td>
</tr>
</tbody>
</table>

**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: < 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)

**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

**Ordering information**

- PSC Console device, remote paging console
- PSC KP Expansion keypad for PSC
- PSCUB® Console accessory, junction box (supplied with PSC-XX)
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
CD-Touch-G2: For use with DIVA8 system controllers

CONTROLS AND INDICATORS
- 5" full colour 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 VDC external supply in PoE not available)

PARTS INCLUDED

<table>
<thead>
<tr>
<th>Quantities</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CD-Touch-XX</td>
</tr>
<tr>
<td>1</td>
<td>CAT-5 cable, 1m</td>
</tr>
</tbody>
</table>

TECHNICAL SPECIFICATIONS

Electrical
- Mains power supply
  - Voltage: 18–26 VDC
  - Power consumption: 150 mA
- Performance
  - Frequency response: -3 dB @ 100 Hz to 18 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
- 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.)

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

Ordering information
- CD-Touch-G2 for DNA
- CD-Touch-AS for IDA8 and ECS

ATEIS
Audio Distribution over IP
Commercial Audio
Intelligent Acoustic Solutions
Intercommunication
Loudspeakers
WALL-MOUNTED MONITORED PAGING CONSOLE

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 DIVA8 and 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).

CD8-G2 / CD16-G2: Used with DIVA8 system controllers (The maximum CD8 / CD16 units of configuring with daisy-chain wiring is 11 units (only the first unit is under monitored). An external power supply should be used for every third unit in the chain).

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.
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 |

PARTS INCLUDED
<table>
<thead>
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<tbody>
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<td>1</td>
<td>CD8 / CD16</td>
</tr>
<tr>
<td>1</td>
<td>CAT-5 cable, 10pin, 1.5 m</td>
</tr>
</tbody>
</table>

TECHNICAL SPECIFICATIONS

Electric
- Power supply Interface RS-485 (RJ45/CAT-5)

DC/battery power requirements
- Voltage 18 - 26 VDC
- Power consumption 120 mA

Performance
- Frequency response -3 dB @ 200 to 8kHz
- 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 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, 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

Ordering information
- CD8-G2 for DW8B-Systems
- CD8-AS for ID8B-Systems
- CD16-G2 for DW8B-Systems
- CD16-AS for ID8B-Systems
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 PPM 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.

### 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

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<td>CDPM-XX</td>
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<tr>
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<td>Junction Box</td>
</tr>
<tr>
<td>1</td>
<td>CAT-5 cable, 10pin, 1m</td>
</tr>
</tbody>
</table>

### SPECIFICATIONS

#### ELECTRICAL
- **Main power supply**: 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**: 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 Hz 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

#### ORDERING INFORMATION
- **CDPM**: Console device, remote paging console
- **CDPM/JB**: Console accessory, junction box (supplied with CDPM-XX)
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 PPM 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
- Front
- RS485 for CAT-5 connection

#### PARTS INCLUDED

<table>
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<th>Quantities</th>
<th>Components</th>
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</thead>
<tbody>
<tr>
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<tr>
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<td>Junction Box</td>
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<tr>
<td>1</td>
<td>CAT-5 cable, 10pin, 1m</td>
</tr>
</tbody>
</table>

#### 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
- 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

**Ordering information**

- PCP: Console device, remote paging console
- PCP,AS: Console accessory, junction box
  (supplied with PCP-XX)
Consoles & Accessories

URC / URC 200 / DNM

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 = 84 mm (W) x 33 mm (L) x 84 mm (H)
3-3/10” (W) x 1-3/10” (L) x 3-3/10” (H)
Weight = 0.08kg (0.17 lbs)

Ethernet Universal Programmable Remote Controller

The URC200 is an programmable remote controller (TCP/IP) for the PAVA 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 lbs)

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

PARTS INCLUDED

<table>
<thead>
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<th>Quantities</th>
<th>Components</th>
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<tbody>
<tr>
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<td>DNM-485 / DNM Ethernet</td>
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<tr>
<td>1</td>
<td>CAT-5 cable, 100 m</td>
</tr>
</tbody>
</table>

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

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

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

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

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

Ordering information
DNM-485 / Ethernet Digital Noise Sensing Microphone
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 -dailing, 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.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>CONTROLS AND INDICATORS</th>
<th>TECHNICAL SPECIFICATIONS</th>
<th>MECHANICAL</th>
<th>ENVIRONMENTAL</th>
<th>ORDERING INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dialpad Front</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>- Telephone Keypad / Function Keypad / Panel</td>
<td>- Dialpad Power supply</td>
<td>Dialpad</td>
<td>Dimensions (H x W x D)</td>
<td></td>
</tr>
<tr>
<td>- Display / Status LED / Buzzer</td>
<td>Voltage</td>
<td>Dialpad Power supply</td>
<td>Dialpad</td>
<td>66 x 255 x 108 mm</td>
</tr>
<tr>
<td>Dialpad Rear</td>
<td></td>
<td></td>
<td></td>
<td>(2-3/5” x 10” x 4-1/4”)</td>
</tr>
<tr>
<td>- RS485 connector / Battery Holder</td>
<td>Battery power</td>
<td>Wireless Transceiver</td>
<td>Battery power</td>
<td>30 x 100 x 67 mm</td>
</tr>
<tr>
<td>Wireless Transceiver Front</td>
<td>Power consumption</td>
<td>Battery power</td>
<td>Battery power</td>
<td>(1-1/5” x 4” x 2-5/8”)</td>
</tr>
<tr>
<td>- Power LED / Status LED</td>
<td>Wireless Transceiver</td>
<td>Weight</td>
<td>Weight</td>
<td>0.5 kg (1.1 lbs)</td>
</tr>
<tr>
<td>Wireless Transceiver Rear</td>
<td></td>
<td></td>
<td>Wireless Transceiver</td>
<td>Wireless Transceiver</td>
</tr>
<tr>
<td>- RS485 / RS232 / 24VDC connector</td>
<td></td>
<td></td>
<td>Color</td>
<td>RAL7016</td>
</tr>
</tbody>
</table>

**Dialpad**

**With Wireless Transceiver**

**PARTS INCLUDED**

<table>
<thead>
<tr>
<th>Quantities</th>
<th>Components</th>
<th>CAT-5 (FTR) / 100 m (max.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wireless Transceiver</td>
<td>Dialpad</td>
</tr>
<tr>
<td>1</td>
<td>CAT-5 cable, 500m</td>
<td>Wireless Transceiver</td>
</tr>
</tbody>
</table>
URGP

ALARM INPUT INTERFACE FOR IDA8-SYSTEM AND DIVA-SYSTEM

MAIN CHARACTERISTICS

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

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

Each URGP32in / URGP 1616O provide 32 /16 additional alarm inputs. 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 an RS232 /RS485 monitored serial link.

SPECIFICATIONS

CONTROLS AND INDICATORS

<table>
<thead>
<tr>
<th>Front</th>
</tr>
</thead>
<tbody>
<tr>
<td>• EVACUATION active indicator</td>
</tr>
<tr>
<td>• FAULT indicator</td>
</tr>
<tr>
<td>• POWER indicator</td>
</tr>
</tbody>
</table>

INTERCONNECTIONS

<table>
<thead>
<tr>
<th>Rear</th>
</tr>
</thead>
<tbody>
<tr>
<td>• RJ45</td>
</tr>
<tr>
<td>• RS232</td>
</tr>
</tbody>
</table>

CERTIFICATIONS AND APPROVALS

| REGIONAL CERTIFICATIONS | 
|-------------------------|---|
| Europe                  | Voice Alarm EN54-16 certified 2012 |
|                         | CE – 0359 according to EN50130 – 4 |

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Electrical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mains power supply</td>
</tr>
<tr>
<td>Voltage</td>
</tr>
<tr>
<td>Power consumption</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evacuation inputs</td>
</tr>
<tr>
<td>Contact mode</td>
</tr>
<tr>
<td>Voltage mode</td>
</tr>
<tr>
<td>Monitoring resistor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable type / Length</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mechanical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions (H x W x D)</td>
</tr>
<tr>
<td>Weight</td>
</tr>
<tr>
<td>Color</td>
</tr>
</tbody>
</table>

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 |

Ordering information

URGP32in / URGP1616O Accessory, Alarm input interface

- CE 12
- 0359-CDA-0177
## List of Peripherals

<table>
<thead>
<tr>
<th>Peripherals</th>
<th>Connection</th>
<th>Maximum number (per port)</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSS AS</td>
<td>PDC port</td>
<td>1</td>
<td>IDA8</td>
</tr>
<tr>
<td>PSS G2</td>
<td>PSS / PSM port</td>
<td>1</td>
<td>DNA8G2</td>
</tr>
<tr>
<td>PSS G2E</td>
<td>Ethernet</td>
<td>8</td>
<td>DNA8G2</td>
</tr>
<tr>
<td>PPM-IT5</td>
<td>Ethernet</td>
<td>1 (Active Over Eth.)</td>
<td>IDA8</td>
</tr>
<tr>
<td>PPM AS</td>
<td>PDC port</td>
<td>32</td>
<td>IDA8</td>
</tr>
<tr>
<td>PSM</td>
<td>PSS / PSM port</td>
<td>10</td>
<td>DNA8G2</td>
</tr>
<tr>
<td>PSC</td>
<td>PDC port</td>
<td>32</td>
<td>IDA8</td>
</tr>
<tr>
<td>CD8 / CD16</td>
<td>PDC port (IDA8), PSS / PSM port (DNA8G2)</td>
<td>1</td>
<td>IDA8/DNA8G2</td>
</tr>
<tr>
<td>CD-Touch</td>
<td>PDC port (IDA8), PSS / PSM port (DNA8G2)</td>
<td>1</td>
<td>IDA8/DNA8G2</td>
</tr>
<tr>
<td>PCP / CDPM</td>
<td>PDC port</td>
<td>32</td>
<td>IDA8</td>
</tr>
<tr>
<td>DialPad / Wireless Transceiver</td>
<td>PDC port</td>
<td>1</td>
<td>IDA8</td>
</tr>
<tr>
<td>URC-AS</td>
<td>PDC port</td>
<td>32</td>
<td>IDA8</td>
</tr>
<tr>
<td>URC200TPC</td>
<td>Ethernet</td>
<td>Eth. Limit</td>
<td>IDA8</td>
</tr>
<tr>
<td>DNM-485</td>
<td>PDC port</td>
<td>32</td>
<td>IDA8</td>
</tr>
<tr>
<td>DNM-Ethernet</td>
<td>Ethernet</td>
<td>Eth. Limit</td>
<td>IDA8</td>
</tr>
<tr>
<td>URG32in / URG16160</td>
<td>PDC port</td>
<td>1</td>
<td>IDA8</td>
</tr>
</tbody>
</table>

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, PSS port and PSM port are all powered over RS485 communication protocol.