IDA4
Compact audio system for Public Address and Evacuation (EN 60849)

MAIN PROPERTIES

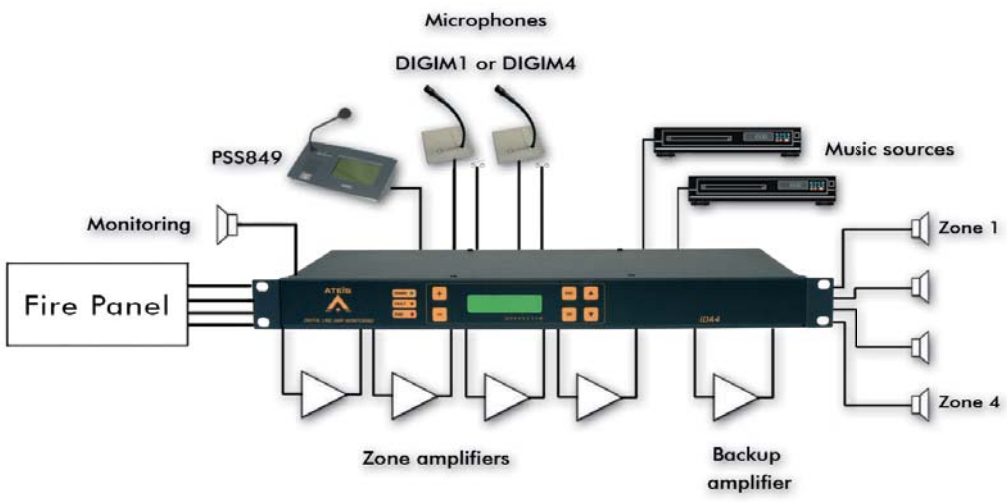
- 5 audio inputs (1 emergency broadcast microphone + 4 x 0dB balanced inputs).
- Monitoring of four 100 V Loudspeaker zones.
- Max 500 W per zone /amplifier.
- Monitoring of 4 zone amplifiers + 1 backup amplifier.
- Full monitoring of the PSS microphone console (capsule, screen, touchpad, connections).
- Digital message player (4 messages, total length up to 2 mins. 11 secs.).
- Digital signal processing (DSP).
- Parametric equalization: 3 bands on inputs, 7 bands on outputs.
- Individual controls for each input and output level.
- Separate levels for the security sources.
- Free zone labelling.
- 9 programmable priority levels (contact or VOX audio routing).
- Programmable delay of 0 to 683 msecs.
- Measurements (levels and impedance) of amplifiers and LS lines.
- Incident data record with up to 2048 incidents.
- Internal clock.

SINAPS-Compact responds to public address requirements and EN 60849 compliance for small and medium-scale installations. It works autonomously and its single unit comprises: audio digital signal processing (DSP), a digital message player, amplifiers monitoring with switchover to backup amplifier, and loudspeaker lines monitoring.

It can support 1 PSS849 security microphone console with touchpad and can process and route another four 0 dB audio inputs into 4 different zones. Each channel is fitted with volume control, equalizers, and a programmable delay. Each 0 db input features contact and VOX activation (ideal when using the cordless microphone, for example). Four digital messages can be recorded through audio inputs or downloaded as WAV files directly from a computer into IDA. A security message is pre-programmed in 4 languages. SINAPS-Compact is fitted with 4 alarm inputs and 4 input contacts making it possible to obtain pre-programmed routings. The 4 output contacts can be used to disable the 100 V line attenuators.

As an EN 60849 security system, all SINAPS-Compact functions and peripherals are monitored. All incidents are recorded into a data file which can be consulted on the display screen. Also any detected faults are signalled by a general fault output contact. A local loudspeaker output enables selective listening to the messages and the system's 100 V output signals. Control keys and the front LCD screen can be used to configure SINAPS-Compact. Access can be password-protected.

SINAPS COMPACT — Small Installations - Functionnal diagram



Public Address Voice Alarm

SINAPS M / XM

IDA4M
Master module

IDA4Ms
Slave module

MAIN PROPERTIES

- From 5 to 280 audio inputs (0 dB balanced).
- Up to 32 PSSDT security microphone consoles with touchpad.
- Monitoring of 4 to 256 100 V Loudspeaker zones.
- Max 500 W per zone /amplifier.
- Monitoring of 4 to 256 zone amplifiers 1 to 64 backup amplifiers.
- Full monitoring of PSS microphone consoles (capsule, screen, touchpad, connections, LS).
- Digital message players (12 messages, total length up to 2 min 11 sec.).
- One message can be define as customized chime.
- Digital audio bus between modules (32 channels, bandwidth: 20 kHz).
- Digital signal processing (DSP).
- Separate levels for the security sources.
- Parametric equalization: 3 bands on inputs, 7 bands on outputs.
- Individual controls for each input and output level.
- Separate levels for the security sources.
- Free zone labelling.
- 100 priority levels (contact or automatic detection activation).
- Programmable delay of 0 to 683 msecs.
- Measurements (levels and impedance) of amplifiers and LS lines.
- Incident data record with up to 2048 incidents.
- Possibility to store the event log file on a computer.
- Internal clock.

SINAPS-Product range responds to public address requirements and EN 60849 compliance for medium and large-scale installations. It comprises the cascading of an IDA4M master module and one or several IDA4Ms slave modules. This module assembly extends the system's capacity to 288 inputs x 256 outputs.

Each module unit houses: audio digital signal processing (DSP), a matrix, a digital message player, amplifiers monitoring with switchover to backup amplifier, and loudspeaker lines monitoring.
Each module can support 1 PSSDT security microphone console or up to 16 cascaded PSM-8 microphone consoles and can process and route another four 0 dB audio inputs into 4 different zones. Each channel is fitted with volume controls, equalizers, and a programmable delay. Each 0 dB input feature contact and VOX activation (ideal when using the cordless microphone, for example). Up to 12 digital messages can be downloaded and recorded as WAV files directly from a computer into IDA4. Four messages can be played simultaneously in different zones. A security message is pre-programmed in 4 languages. One of the messages can be used as a chime for the PSS/PSM-8 microphone. 4 alarm inputs making it possible to obtain the pre-programmed routings. The 4 output contacts can be used to disable the 100 V line attenuators.
As an EN 60849 security system, all SINAPS components and peripherals are monitored. All incidents are recorded into a data file which can be consulted on the master module monitor display or on a PC. Also any detected faults are signalled by a general fault output contact. A local loudspeaker output enables selective listening to all the sources and the system's 100 V output signals. The setup of SINAPS is realised through a PC computer and the PCIDA4XM configuration software. (Windows compatible). Access can be password-protected.
The routing and the level of the music sources can be controlled directly from the PSS/PSM-8 microphones.
Furthermore, SINAPS can be combined with the IDA4SU when fault back microphone and a+b wiring features are requested.
Several Racks of IDA4M can be remote controlled from a Master location.

A MODBUS protocol allows third party system to control IDA4M over a serial link.

IDA4XM
Master module

IDA4XMs
Slave module

In comparison with IDA4M, IDA4XM has following additionnal feature :
Automatic Gain Control: one sensing microphone (PABFMP) per IDA4 could be connected to one of the audio inputs. It will allow IDA4 to make an intelligent measure of the noise level and adapt the gain of the corresponding zone(s).

All these features make **SINAPS-Product** range the ideal system for shopping malls, hotels, restaurants, museums and many other public places.

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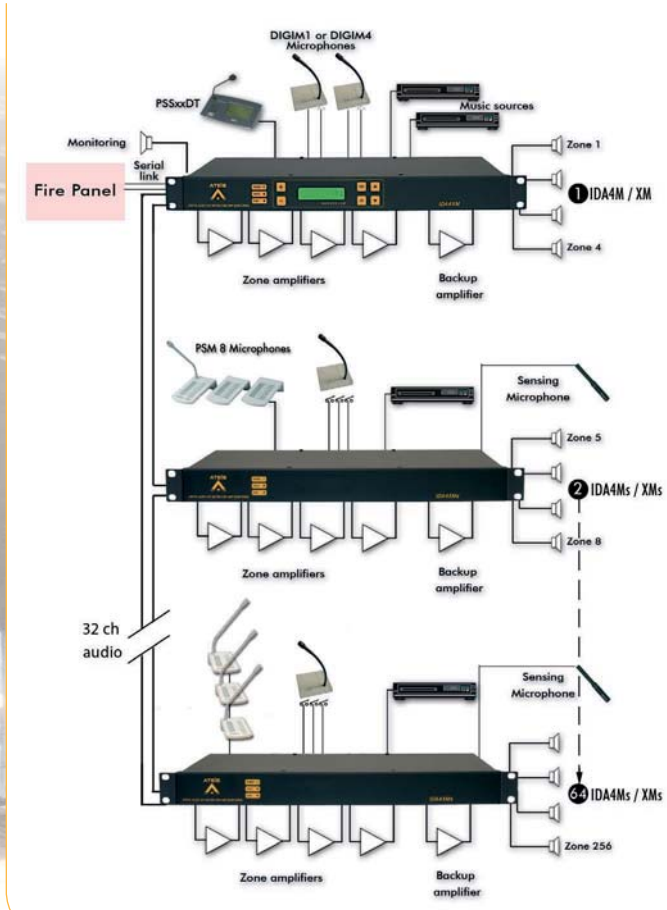
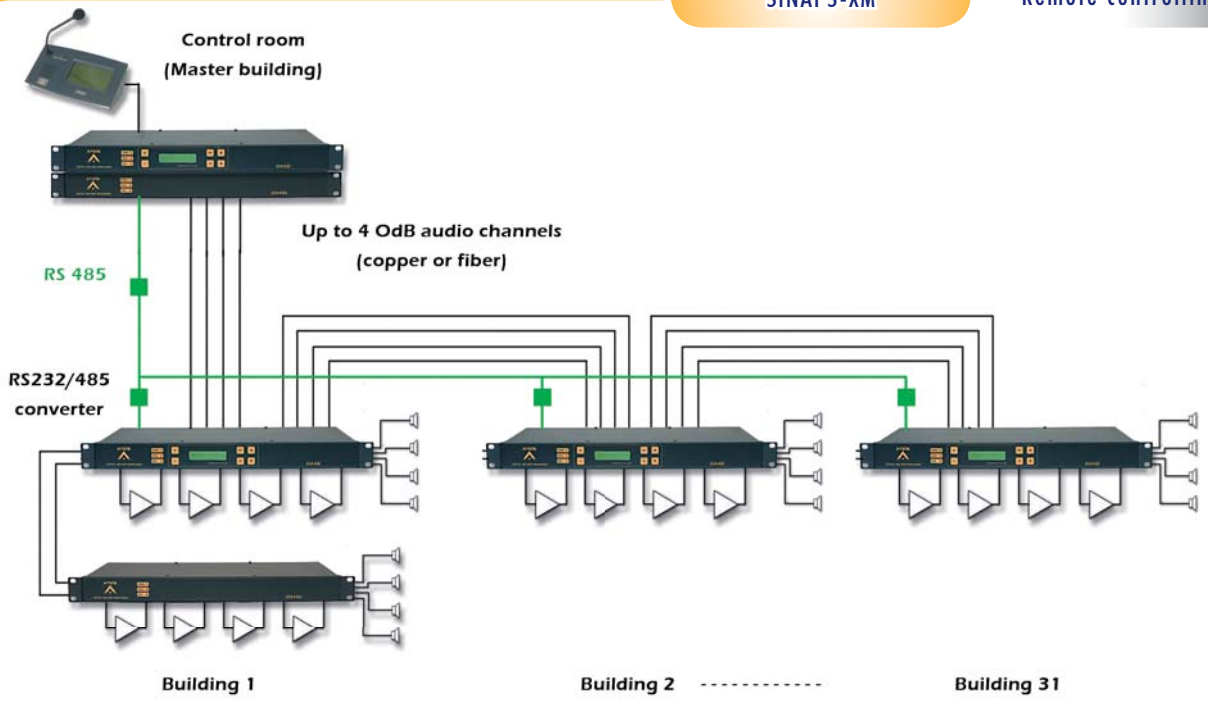
SINAPS-XM — Functionnal diagram

IDA4M
Module Master

IDA4Ms
Module Slave



SINAPS-XM — Remote controlling



PUBLIC ADDRESS - VOICE ALARM

IDA4SU

Fault back and Switching unit

MAIN PROPERTIES

- Microphone fault back.
- a+b speaker circuits surveillance.
- Separate LEDs for fault back and speaker circuits status.
- Surveillance of 8 speaker circuits (4 zones).
- Setup integrated in Sinaps-M/XM softwares.
- 230 VAC availability LED (green).
- EN 60849 and BS 5839 part 8 compliance.

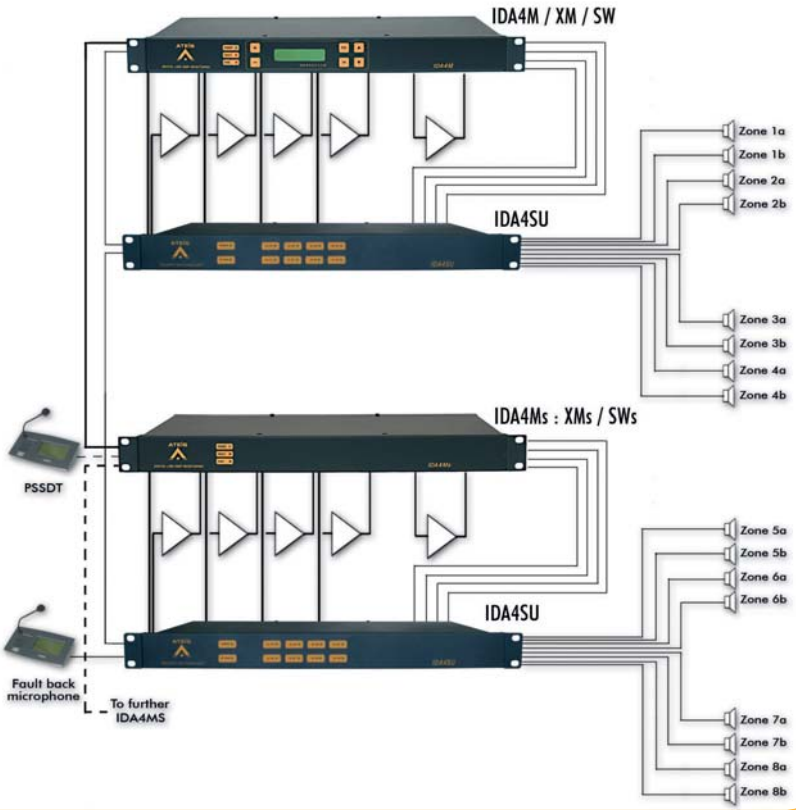
The IDA4SU is an optional unit that will provide the SINAPS-Product range systems with the following additional features :

1) Fault back microphone : in case of failure of one or more IDA4M/XM/SW and their slaves modules, the IDA4SU will automatically connect one PSS microphone directly to all amplifiers inputs, allowing the user of the system to make an all call announcement.
2) a+b zone wiring on same amplifier : when two speaker circuits are used in a zone, they can be connected to the same amplifier. The IDA4SU unit will take care of the separate line surveillance according EN 60849 and BS 5839 part 8 regulations. If one of the speaker circuit is shorted, then it will be disconnected without influencing the other circuit of the corresponding zone.

The front panel LEDs will provide following information:
1) Separate zone circuit status (Yellow if zone circuit is Faulty)
2) Fault back microphone function (Yellow if bypass mode active)
3) Power (Green if power supply is OK)

The IDA4SU setup is supported by the SINAPS PC configuration software and does not require any additional programming.

IDA4SU Functionnal diagram



SINAPS SWITCHING and IDA4SU

IDA4SW
Master module

IDA4SWs
Slave module

MAIN PROPERTIES

- 4 PA inputs per IDA4SW/s (0 dB balanced).
- One PSSDT security microphone consoles with touchpad per IDA4SW/s.
- Monitoring of 8 to 256 100 V Loudspeaker zones.
- Max 500 W per IDA4SU /amplifier.
- Monitoring of 4 zone amplifiers + 1 backup amplifiers per IDA4SW/s.
- Full monitoring of PSS microphone consoles (capsule, screen, touchpad, connections, LS).
- Digital message players (8 messages, total length up to 2 min 11 sec.).
- Play back of up to 4 simultaneous digital messages.
- One message can be define as customized chime.
- Digital audio bus between IDA4SW/s modules (32 channels, bandwidth: 20 kHz).
- Digital signal processing (DSP).
- Parametric equalization: 3 bands on inputs, 7 bands on outputs (1 OUT per IDA4SU).
- Individual controls for each input and output level (1 OUT per IDA4SU).
- Separate levels for the security sources.
- Free zone labelling on PSS.
- 100 priority levels (contact or automatic detection activation).
- Programmable delay of 0 to 683 msecs per Output.
- Measurements (levels and impedance) of amplifiers and LS lines.
- Incident data record with up to 2048 incidents.
- Possibility to store the event log file on a computer.
- Internal clock.
- Music routing and level selection from PSS consoles.
- Monitoring loudspeaker output.
- Remote controlling of Slave racks from a Master location.
- EN 60849 compliant surveillance.
- PC setup configuration.

The SINAPS combination of IDA4SW/s and IDA4SU allows to connect up to 8 zones to the same amplifier. The zone selection will then happen trough the automatic switching of the relevant 100 V speaker line to the corresponding 100 V amplifier output.

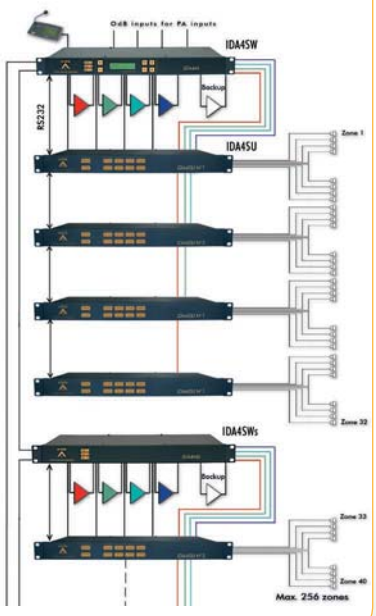
Each line and amplifier will be constantly monitored according EN 60849/BS 5839 with no background music interruption.
In the "Dual audio channel" mode, when a microphone or message call is made in a zone or group of zone, the music will not be interrupted in the zones not selected for the call.
In the "Single audio channel" mode, in case of a selective call, the music will be interrupted only in the zones connected to the IDA4SU receiving the call.
Each IDA4SU, and the 8 zones connected to it, could receive a different music source to a predefined level.
In "Single audio channel" mode, each IDA4SW/s will be able to control up to 4 IDA4SU (32 zones) and a total of 8 IDA4SW/s can be linked together allowing to build a 256 zones PA/VA system.

In "Dual audio channel" mode, each IDA4SW/s will be able to control up to 2 IDA4SU (16 zones) and a total of 8 IDA4SW/s can be linked together allowing to build a 128 zones PA/VA system.
For both modes, the maximum audio power per IDA4SU, and the 8 zones connected to it, is 500 W.

Those SINAPS combinations are ideal for applications requesting a lot of zones like schools, high raise buildings, commercial buildings…

PUBLIC ADDRESS - VOICE ALARM

SINGLE AUDIO CHANNEL



DUAL AUDIO CHANNEL