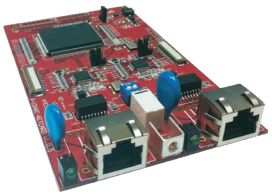
NET-CX

ATEÏS Net Secured Audio Network Card

*Port A = network IN
*Port B = network OUT

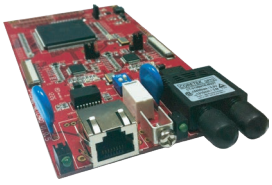


NET-C1, RJ45 (A) - (B)

NET-C2, Fiber Optic Multi Mode (A) - RJ45 (B)

NET-C3, Fiber Optic Multi Mode (A) - (B)

NET-C4, RJ45 (A) - Fiber Optic Multi Mode (B)



NET-C2S, Fiber Optic Single Mode (A) - RJ45 (B)

NET-C3S, Fiber Optic Single Mode (A) - (B)

NET-C4S, RJ45(A) - Fiber Optic Single Mode (B)

ATEÏS Net™ is a secured (monitored) audio network, developed and supplied for fast and low-latency audio and data transport over a redundant copper via STP CAT5/6 or fiber-optic network ring. ATEÏS Net™ has an open-architecture design providing the best solution to medium to large-scale installations, such as shopping malls, retail stores, train stations and airports.

ATEÏS Net™ secured audio network responds to Public Address and Voice Alarm requirements as stated in EN 54-16, UL60065 and BS5839/8, with specific attributes for compliance in large installations.

ATEÏS Net™ is able to simultaneously transport 48 audio channels (32 bit, 48k Hz sampling rate) with a latency <1 ms together with the necessary control data over a STP CAT5/6 or fiber-optic network. For LOCAL and GLOBAL system networking, optional ATEÏS Net™ networking cards can be installed into the IDA8 controller and slave units. Thanks to its loop architecture, the ATEÏS 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. ATEÏS global-net, can be a network of more than one controller (matrix mode and switch mode) and a maximum up to 31 IDA8Sxx slave units (matrix mode and switch mode) in a local system.

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

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

SECURITY

In accordance with EN 54-16, UL60065 and BS5839/8, all IDA8 system components and peripherals on the ATEÏS Net™ secured audio network are monitored and reports stored in the IDA8C system controller. The controller monitors the status of all the equipment in the system, reports status changes and stores fault messages for recall either on the controller front-panel display or through the ATEÏS Studio PC-based software.

FEATURES

- ATEÏS Net™ audio and data secured network
- Local-net & global-net
- 32 x 32 IDA8 system units in a global network
- Low-latency < 1 ms
- 48 audio channels
- Redundant loop architecture
- 32 bit, 48 kHz sampling
- STP CAT5/6 for up to 100m
- Fiber-optic multi-mode for up to 2 km
- Fiber-optic single-mode for up to 20 km
- Dedicated network
- EN 54-16 certified

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NET-CX

Technical Specifications

INDICATORS
- **Front**
  - Data running indicator
  - Network present indicator

INTERCONNECTIONS
- **Front**
  - Two system network connections either STP CAT5/6 or fiber-optic or a combination

CERTIFICATIONS AND APPROVALS

Europe	Voice Alarm	EN 54-16
		CE-0359
		according to EN 50130-4

PARTS INCLUDED

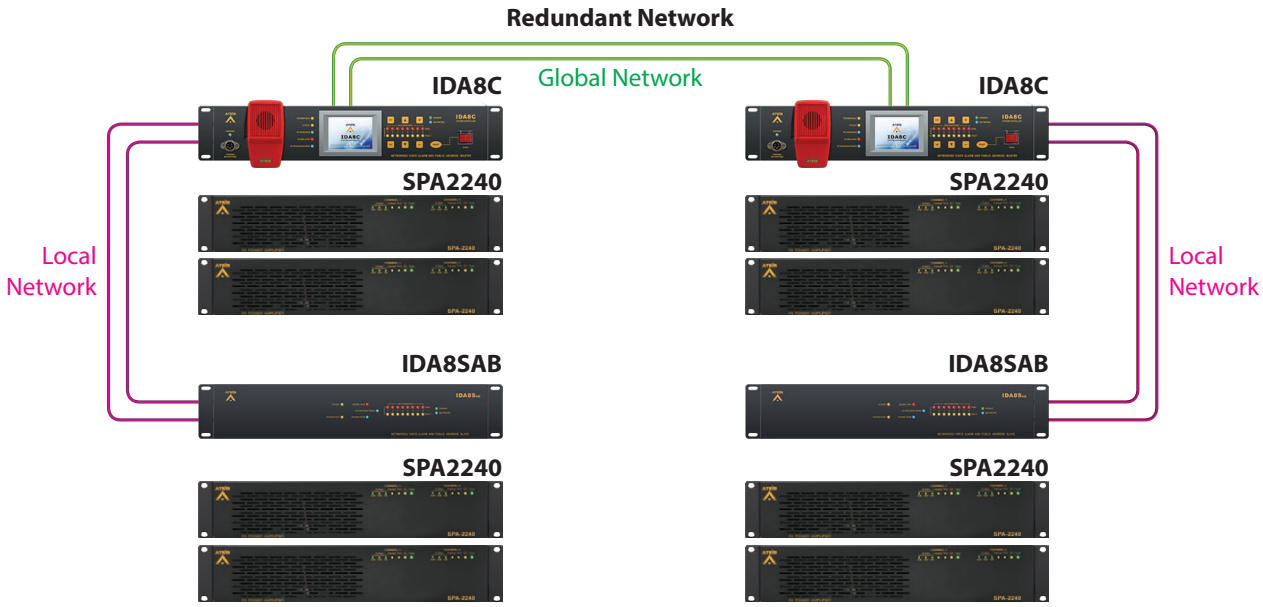
Quantities	Components
1	ATEÏS Net™ secured audio network card
1	Set of interconnecting ribbon cables
1	Set of mounting pillars

ELECTRICAL
- Battery power supply
  - Voltage: Internal multi-power socket
  - Power consumption: 5W

AUDIO CHARACTERISTICS
- Frequency response: 20 Hz ~ 22 kHz
- Sampling rate: 32 bit/48k Hz
- Latency: < 0.08 ms per node
- Integrity assurance: watchdog
- Center wavelength (fiber-optic)
  - Multi-mode: 1,300 nm
  - Single-mode: 1,310 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
- Dimensions (W x H x D): 100 x 18 x 150 mm (3.9 x 0.7 x 5.9 inch)

ENVIRONMENTAL
- Operating temperature: -5 ºC ~ +55 ºC (+23 ºF ~ +131 ºF)
- Storage temperature: -40 ºC ~ +70 ºC (-40 ºF ~ +158 ºF)
- Relative humidity: 20 % to 95 %
- Air pressure: 600 to 1100 hPa



ATEÏS Local-Net and Global-Net

CE 12
0359-CDP-0177

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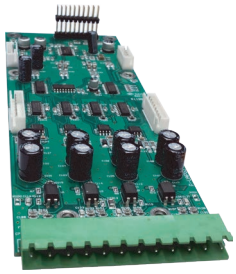
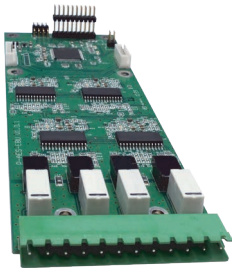
Optional Cards

Input Audio Card



AES/EBU Card

Mono Input/Output, Stereo Input/Output
Duplex Stereo

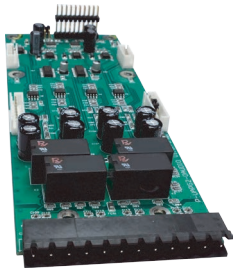


Telephone Card

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
- 3 pin euro block
- 0, 12, 24, 40, 54 dB sensitivity levels
- Signal, RTO, overload indicators
- 48V phantom power
- -60 to 20 dB for level
- -50 to 20 dB overload threshold
- Mute and bypass signal control
- Volume display for each channel
- RoHS compliant



Output Audio Card

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

Digital Audio I/O Cards

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

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

Specialty Cards

How can a multi-project integrate in both PA/VA system and conference rooms? By adding the telephone card to achieve the teleconferencing capabilities on IDA8 system.

- 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

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