NETWORKED PROGRAMMABLE DIGITAL AUDIO SYSTEM

LAPG2

LAPG2-4 In 12 Out: 4 inputs-12 outputs Digital Audio System

LAPG2-8 In 8 Out: 8 inputs-8 outputs Digital Audio System

LAPG2-12 In 4 Out: 12 inputs-4 outputs Digital Audio System

LAPG2-16 In: 16 inputs Digital Audio System

LAPG2-16 Out: 16 outputs Digital Audio System

(Green phoenix block indicating inputs, black for outputs)

Designed for PRO Audio and Commercial applications, the LAPs are the first products to combine secured networking and PRO-sound requirements

- CAT5 and fiber optic redundant audio networking capabilities.
- Internal processing of audio signals can be fully programmed to suit the client's application.
- Excellent sound quality (48 and 96 KHz sampling rate).
- Impressive array of signal processing tools.
- Easy to use PC software for system design and control (GUI).
- Advanced Preset manager.
- Powerful microphone paging and remote control functions.
- Highly flexible input and output configurations.

Sonic excellence

The advanced 24 bits A/D and D/A convertors, together with the 96 kHz-capable audio processing and the 400 mHz SIMD SHARC core, capable of 2.4 GFLOPS peak performance, guarantee an excellent sound quality and low latency.

Impressive array of signal processing tools

The **LAPG2** are comprehensive systems which integrate pre-amplifier, compressor-limiter, equalizer, as well as matrixing and delay functions into one unit. Useful features like Automatic Gain Control, Feedback killers, Automatic Microphone mixers and Crossovers are also part of the **LAPG2 DSP** components library. This new generation provide a message storage component which able to store several audio message in the **LAPG2**.

The following events: Play a message, change master preset, sub preset, element adjustment or set the TTL out can be controlled by third party protocol, by an analog input or by the scheduler.

The scheduler can lead all the events described above.

Internal processing of audio signals can be fully programmed to suit the client's application.

Installers can select the audio processing feature(s) which they wish to apply to the various inputs and outputs from a library on their PC, using software provided with the **LAPG2**. Once the configuration process is completed, it can be loaded into the **LAPG2**. All configurations can be backed-up onto PC and loaded into the **LAPG2** as and when required.
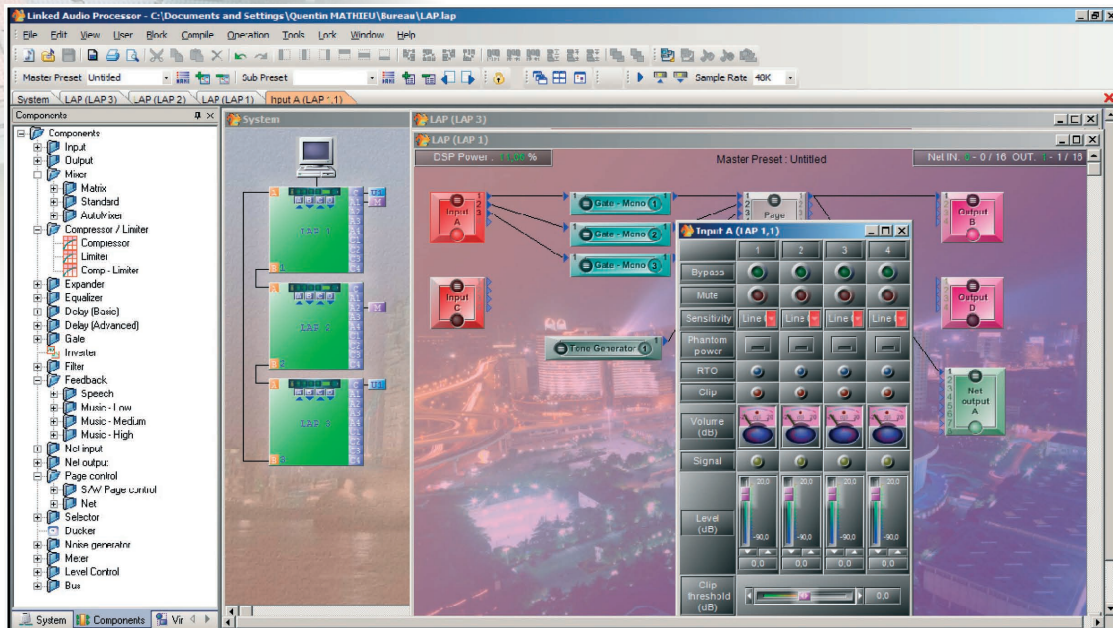
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NETWORKED PROGRAMMABLE DIGITAL AUDIO SYSTEM

Public Address

LAPG2

Easy to use PC software for system design and control (GUI)

The **LAP-DESIGNER PC** software provides all the necessary tools to setup and control the hardware and software elements of the **LAP**.

Advanced Preset manager

The **LAP** includes two types of presets :

More than 20 Parameter presets : they enable values of multiple parameters of the same design, such as levels, gains, EQ, etc. to be restored either from the PC software, the remote controllers or the control inputs.

More than 10 Design presets : they enable completely different designs to be restored. An application example for this feature are hotel meeting rooms with removable walls.

Remote control functions

To maintain simple, secure and intuitive interfaces for operators, the **LAP** offers different types of remote controllers:

RAC5 - RAC8

Wall-mounted level and 5 or 8 sources selectors

URC
Programmable
Remote controller with display

Furthermore, **LAPG2** now provides a TCP/IP port with RJ45 connector. PC-based custom control panels can now operate the **LAPG2** from remote locations through a TCP/IP network.

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LAPG2

16 Analogue control inputs

The LAPG2 has 16 control inputs which can be configured as analog control input (0 to 5 VDC_ or as logic input (TTL) Each control can be associated to any of the variable audio processing functions of the LAPG2 (input level, output level, equalization, routing). Several parameters (Min + Max values, positive or negative variation, linear, log, anti-log) can be programmed for each of those controls.

16 Logic inputs, 8 Logic outputs (GPIOs)

In addition of the logic inputs, each LAPG2 is also equipped with 8 logic outputs (TTL). Each of those hardware input/output's can be associated to virtually any software button the system designer requires to.

The logic inputs could be use to mute or activate an audio signal while the logic outputs enable the LAPG2 to control external equipment. The logic inputs can be used in normal or binary mode.

RS-232 serial interfacing for third party control

The LAPG2 can be controlled from third party equipment like Vity, AMX or Crestron via its RS232 serial port.

The RS232 link will also be used to control the SINAPS voice alarm equipment from the LAPG2.

Microphone paging

The LAPG2 can support the following paging microphones:

PPM-8: microphone console with
- 8 zones/groups buttons
- 1 All call button
- Speak button (Press to talk or ON / OFF, pre and post chime).
- Internal speakers

PPM Keypad: additionnal Keypad for PPM8
- 8 zones/groups buttons
- Up to 11 Keypads can be connected to 1 PPM8.

Junction Box

Easy chain-connection of LAPG2 peripherals (URC and PPM), using standard CAT5 cables.

PPM-8

PPM Keypad

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LAPG2

CAT5 and fiber optic redundant audio networking capabilities
ATEÏS has developed its own audio networking system ''ATEÏS-Net''. This Ethernet based network is able to simultaneously transport 48 audio channels (32 bits, 48 KHz sampling rate) with a latency < 1msec together with the necessary control data.
For decentralised or big applications, an optional ATEÏS-Net networking card can be inserted inside the LAPG2s.

Thanks to its loop architecture, the ATEÏS-Net audio network is fully redundant. If a problem (Line open or shorted) occurs on a loop segment, it will be automatically isolated without affecting the system functionalities.
Up to 32 LAPG2s can be connected together on the same network. As the Network addresses are auto-negociated, the network set up is very easy.

Different type of networking cards are available:

With two RJ45 connectors for CAT5 cabling, max 100 m/300 ft between two LAPs.

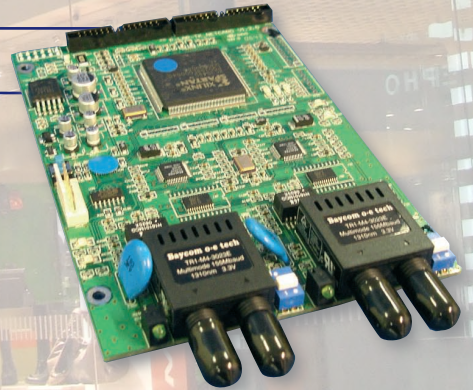With two ST-Fiber connectors, Multimode, max 2000 m /6000 ft between two LAPs.

LAP NET1
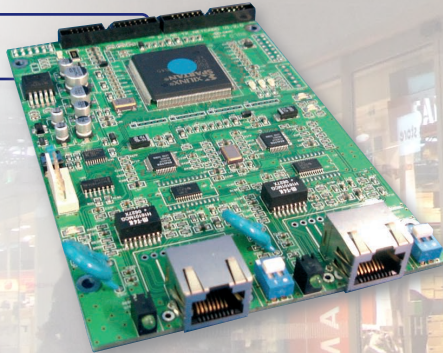
LAP NET3

With one STFiber (port A)
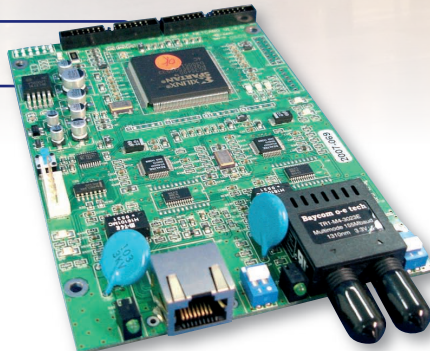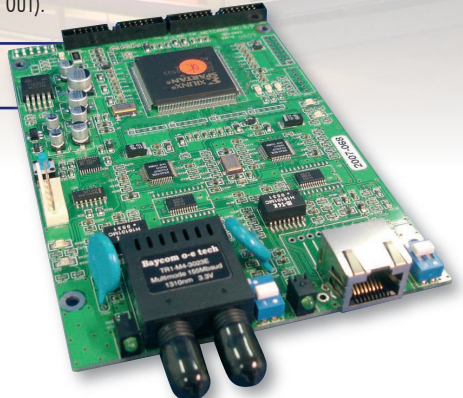+ 1x RJ45 connectors (port B).

(port A = IN) (port B = OUT).

With one RJ45 connector (Port A)
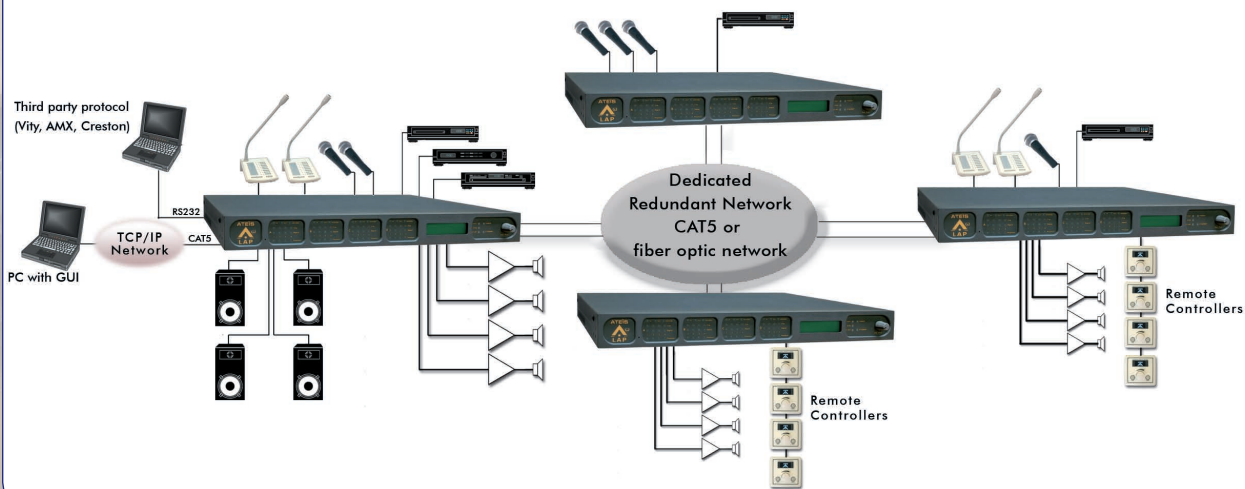and one ST-Fiber connector (Port B).

(port A = IN) (port B = OUT).

LAP NET2

LAP NET4

LAPG2 — CONFIGURATION EXAMPLE

The front panel display and rotary knob allow following setups to be performed without a PC : Time and date settings, preset change, log file access…Of course, those front panel settings can be password protected.

Audio Card	Global
Clip: yellow	Power OK: green
Signal: green (with sensitivity selection)	Fauld: yellow
	EVAC: red
Phantom: green	Stand by: green
Input: green	Data: green
Output: green	Ethernet: green
AES/EBU: green	ATEÏS-Net: green

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