

The new generation of **ATEIS**' DSP audio processor: UAPg2 (Universal Audio Processor generation 2)



Designed for commercial applications, the UAPg2 is the new DSP audio matrix for medium paging and multizone audio routing applications. With its powerful audio digital signal processing, the UAPg2 can easily be used in a demanding environment requiring high audio quality. Using the Ethernet port, it is easy to connect and control the UAPg2 through an IP network or direct from a PC.

What's new:

- Stackable up to 12 units (up to 96*96 matrix).
- More DSP power
- Enhanced SNR
- Message player (up to 36 minutes)
- Scheduler (up to 128 schedules) each schedule can control up to 100 events.
- RS485 control (ATEIS PPM-SF and ATEIS URC)
- Can control the new generation of PPM-SF (Programmable Paging Microphone ability to record a message if the zone is in use and play it when the zone is available)



High Security Sound



STACKABLE AND FULLY PROGRAMMABLE DSP AUDIO PROCESSOR

UAPg2

COMMERCIAL AUDIO



Sound quality

The advanced 24 bit A/D and D/A converters, together with the 48/96 kHz capable audio processing and the ADSP 21371 DSP (266 MHz SIMD SHARC Core, capable of 1596 MFLOPS peak performance), guarantee an excellent sound quality with the lowest possible latency.

Hardware configuration:

UAPg2-4 In 12 Out: 4 inputs-12 outputs Digital Audio System

UAPg2-8 In 8 Out: 8 inputs-8 outputs Digital Audio System

UAPg2-12 In 4 Out: 12 inputs-4 outputs Digital Audio System

UAPg2-16 In: 16 inputs Digital Audio System

UAPg2-16 Out: 16 outputs Digital Audio System

MAIN FEATURES

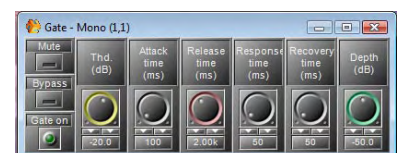
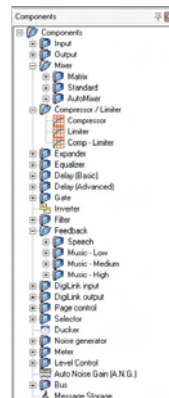
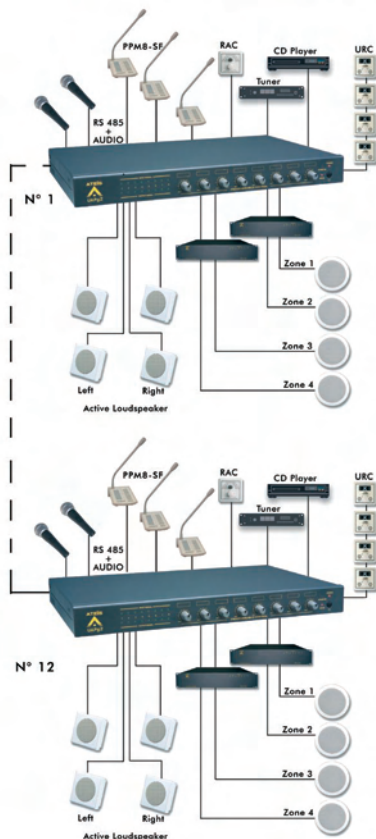
- Internal processing of audio signals can be fully programmed to suit the client's application.
- Excellent sound quality (48 and 96 kHz sampling rate).
- Impressive array of signal processing tools.
- Easy to use PC software for system design and control (GUI).
- Advanced Preset manager.
- Advanced event scheduler
- Message player (up to 36 minutes in 8 bits and 48 kHz bandwidth)
- Powerful microphone paging and remote control functions.
- Highly flexible input and output configurations.
- 8 fully programmable front knobs for quick adjustments access.
- 16 controls Inputs (either TTL or Analog) and 8 TTL Outputs for remote control and monitoring
- Easy setup 3rd party control via RS232 or Ethernet
- Ethernet and TCP/IP connection for easy system setup and remote control
- RS485 connection for ATEIS remote devices:
 - URC (Universal Remote Control)
 - PPM- SF (Programmable Paging Microphone)
- Ability to digitally link up to 12 units and share 12 audio channels in 48 kHz or 8 audio channels in 96 kHz.

UAPg2

CONFIGURATION EXAMPLE

Impressive library of signal processing tools

The UAPg2 is a comprehensive system which integrates pre-amplifier, compressor-limiter and equalizer, as well as matrix and delay functions into one unit. Useful features like **Automatic Gain Control**, **Feedback killers**, **Automatic Microphone mixers and Crossovers**, **Automatic Noise sensing**, are also part of the UAPg2 DSP component library. Internal processing of audio signals can be fully programmed to suit the client's application. Installers can select the audio processing feature(s) that they wish to apply to the various inputs and outputs from a library on their PC, using software provided with the UAPg2. Once the configuration process is completed, it can be loaded into the UAPg2. All configurations can be backed-up onto PC and loaded into the UAPg2 as and when required.



STACKABLE AND FULLY PROGRAMMABLE DSP AUDIO PROCESSOR

UAPg2

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



The UAPg2-DESIGNER PC software provides all the necessary tools to set up and control the hardware and software elements of the UAPg2.

Advanced Preset manager

The UAPg2 includes two types of presets:

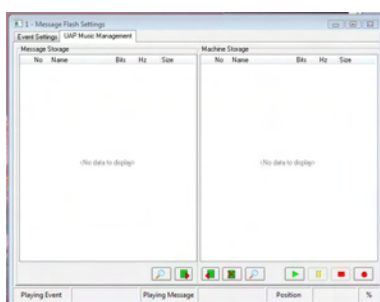
More than 20 Parameter presets: They enable values of multiple parameters of the same design, such as levels, gains, EQ, etc. to be restored either from the PC software, the remote controllers or the control inputs.

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

Message player

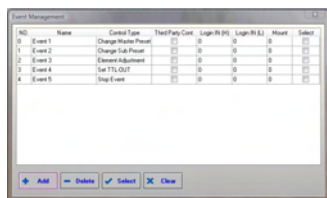
The Message player incorporated into the UAPg2 allows you to play any kind of message to be played. Only one message per UAPg2 can be run at a time. With the 100 Mbyte memory, the following storage times are available with WAV format:

- 36 minutes of audio message at 48 kHz, 8 bits
- 18 minutes of audio message at 48 kHz, 16 bits or 96 kHz 8 bits
- 9 minutes of audio message at 96 kHz, 16 bits






Scheduler and event management

The scheduler allows planning of events (preset change, message play, close/open TTL out or change component's adjustments). Up to 128 different schedules can be scheduled. In one schedule you can define up to 100 events.



Remote control functions

To maintain simple, secure and intuitive interfaces for operators, the UAPg2 offers different types of remote controllers:

RAC5	RAC8	URC
		
Wall-mounte. Level control and 5 sources selectors	Wall-mounted. Level control and 8 sources selectors	Programmable Remote controller with display

Furthermore, custom control panels can run on a PC connected to the UAPg2 network via the RJ45 connector or you can use 3rd party protocol control via RS232.

Control inputs

The UAPg2 has 16 (0 to 5 VDC) control inputs either analogue or Logical (TTL). Each control can be associated to any of the variable audio processing functions of the UAPg2 (input level, output level, equalization, routing, mute, bypass, preset change...). Several parameters (Min + Max values, positive or negative variation, linear, log, anti-log) can be programmed for each of these controls.

8 Logic outputs (GPIOs)

Each UAPg2 is equipped with 8 logic outputs (TTL). Each of those hardware outputs can be associated to virtually any software buttons or LEDs the system designer requires. The logic outputs can be used to enable the UAPg2 to control external equipment.

RS-232 serial interfacing for third party control

The UAPg2 can be controlled from third party equipment like Vity, AMX or AMX, Creston or Vity roomcontroller via its RS232 serial port.

Ethernet port

The UAPg2 can be programmed, controlled and also monitored via IP network using its RJ45 connector.

Microphone paging

The UAPg2 can support the following paging microphones:

PPM8-SF:

Microphone console with:

8 zones/groups buttons

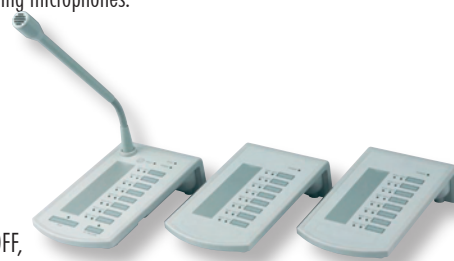
1 All call button

Speak button (Press to talk or ON / OFF,

pre and post chime includes 2 minutes of recording for Speak-Forward function. When paging in an occupied zone, the message will automatically be recorded by the microphone console itself and released as soon as the dialled zone is available again.)

PPM-SF Keypad: additional Keypad for PPM8-SF

8 zones/groups buttons up to 11 Keypads can be connected to 1 PPM8-SF



STACKABLE AND FULLY PROGRAMMABLE DSP AUDIO PROCESSOR

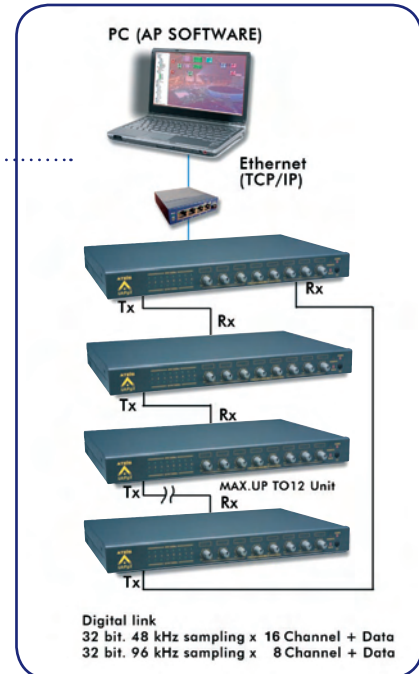
UAPg2

Junction Box

Easy chain-connection of UAPg2 peripherals (URC and PPM-SF), using standard CAT5 cables. Junction box is included with the PPM-SF.

UAPg2 Digital Link

If more inputs or outputs are required, it is possible to digitally link up to 12 UAPg2 (maximum distance between two UAPg2 is 10 meters). Through this link, you can share up to 16 channels at 48 kHz or 8 channels at 96 kHz sampling rate to the next device.



Technical specifications:

Audio Inputs	Audio input impedance: 10 kOhms (symmetrical, screw terminal) Input sensitivity: 0 dB, -12dB, -24 dB, -40dB, -55 dB (software selection) Max input: +15 dBu Bandwidth: 20 Hz to 20 kHz Phantom power soft config 48 VDC
Audio Outputs	Audio output impedance: 100 Ohms (symmetrical, screw terminal) Bandwidth 20 Hz to 20 kHz Max output +15 dBu. Total Harmonic Distortion < 0.03% , +0 dBu, 20~20 kHz, unity gain, 20 kHz BW S/N: (100 dB),(re+15 dBu), unity gain, 22 kHz BW S/N:(80 dB),(re+15 dBu),(54 dB gain), 22 kHz BW Dynamic range: (100 dB),(re+15 dBu), 22 kHz BW
Serial connections	RS232 port: for ATEIS or third party equipment remote control RS485 port: for Remote Controllers and Paging Microphones data control RJ45 port: for PC control and system set up.
Digital Link	One RJ45 TX to send data and audio to next device One RJ45 Rx to receive data and audio from the previous device
Control outputs	8 TTL output 0 to 5 VDC, Contact NO and NC
Control inputs	16 TTL inputs or analogue inputs: 0 to 5 VDC (software selection)
Size and unit	Metal unit 1 U 19" grey RAL 7016 L x W x D: 431 x 44 x 240 mm
Power supply/Consumption	Power supply: AC: 100 to 240 VAC 50/60 Hz DC: 21-28 VDC Consumption: 40 VA 10 VA in stand-by mode