



AP800 Audio Conferencing System

The Audio Perfect® 800 (AP800) provides high-quality audio for conferencing applications. The AP800 contains Distributed Echo Cancellation® (DEC) technology, microphone mixing, audio processing, and matrix mixing — all in a single rack unit system.

DEC technology is vastly superior to system-wide echo cancellation because it eliminates the gating and audio processing problems that continually hamper such systems. DEC results in highly reliable, clear, transparent audio for use in the most demanding environments.

Each of the unit's eight mic/line inputs and four auxiliary line inputs can compensate for loud or soft voices using automatic gain control (AGC). It also offers channelized equalization for continuous cut or boost as well as high-pass filtering to reduce unwanted low-frequency noise.

The AP800 provides extreme flexibility for your applications. Each unit provides eight microphone/line inputs, four auxiliary line-level inputs, and 12 auxiliary line-level outputs. These outputs are ideal for audio sources such as codecs, AP10 telephone interfaces, external PAs, sound reinforcement, VCRs, and CD players.

For conferencing applications where you need significant microphone coverage or multiple telephone line conferencing, up to eight AP800 units and 16 AP10 units can be linked together using ClearOne's high speed G-Link

digital network bus. All G-Linked devices can be controlled and upgraded via a single RS-232 connection.

Set-up and configuration are simple and can be accomplished in one of two ways: 1) Using the AP800's front panel and LCD display, or 2) Via ClearOne's AP-Ware™ configuration software on a connected PC. When any of the six available presets are customized, you can access them on the fly from a remote touch panel (such as AMX or Crestron), a custom control device, or the unit's front panel.



The AP800 provides eight mic/line inputs, four line-level inputs, and 12 line-level outputs.

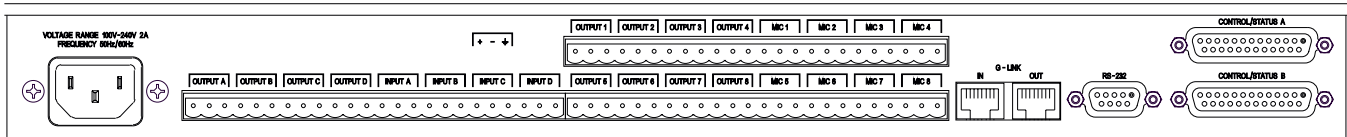
Features and Benefits

- Truly linkable — the AP800, via the G-Link high-speed digital bus, allows for system expansion to accommodate applications requiring up to 64 microphones. All system parameters (gating, NOM, chairman override, PA adaptive, etc.) are linked and function as one system.
- All eight inputs incorporate automatic gain control (AGC) — to compensate for loud or soft voices.
- Matrix — allows for simple routing customization for a wide variety of applications and individual customer requirements.
- Easy "plug and play" echo cancellation—easy to program, and maintain.
- On-the-fly configuration changes—six configurable presets can be accessed from a touch panel, custom control device, or the front panel.
- Full-duplex audio — for clean, transparent audio.
- One rack unit performs the function of several external audio devices — audio functions are designed to work together as a complete audio conferencing system.
- AP-Ware software — an advanced, reliable configuration system that makes programming the AP800 simple.

Applications

- Distance Learning
- Teletraining
- Telemedicine
- Courtrooms
- Conference Rooms
- Boardrooms
- Hotels
- Houses of Worship

The AP800 is manufactured and marketed by ClearOne, formerly Gentner.



Specifications

Dimensions (LxDxH)

17.25" x 10.25" x 1.75"
43.8 x 26 x 4.5 cm

Weight

7 lb/4.5 kg dry
12 lb/5.9 kg shipping

Operating Temperature

32–100° F/0–38° C

Humidity

15% to 80%, non-condensing

Power Input Range

Auto-adjusting
100–240VAC; 50/60Hz

Power Consumption

30W typical

G-Link In/Out

Proprietary Network
RJ-45 (2), 38.4kbps,
110k Ω impedance
Category five twisted-pair cable
20' (6 meters) maximum cable length
between any two Audio Perfect
products

RS-232

DB-9 female
9,600 (default)/19,200/38,400
baud rate; 8 bits, 1 stop, no parity
Hardware flow control on (default)/off

Control/Status

DB-25 female A/B (2)
Inputs A/B: active low (pull to ground)

Outputs A/B: Open collector, 40VDC
max, 40mA each
+5VDC pins (2) (300mA
over-current protected)

Mic/Line Inputs 1-8

Push-on terminal block, balanced,
bridging
Impedance: 5k Ω
Nominal Level: adjustable -55dBu,
-25dBu, 0dBu
Maximum Level: -33dBu, -4dBu,
+20dBu
Echo Cancellation: 120ms tail time
(works with 12dB of room gain)
Phantom Power: 24V, selectable

Line Inputs A-D

Push-on terminal block, balanced,
bridging
Impedance: >20k Ω
Nominal Level: 0dBu
Maximum Level: 19dBu

Outputs 1-12

Push-on terminal block, balanced
Impedance: 50 Ω
Nominal Level: 0dBu
Maximum Level: 19dBu

Audio Performance

Conditions: Unless otherwise specified,
all measurements are performed with
a 22Hz to 22kHz BW limit
(no weighting).
Frequency Response: 20Hz–15kHz
 \pm 2dB
Noise (EIN): -125dBu, 15kHz BW,
max gain, Rs=150 Ω

THD+N: <0.1%
SNR: 65dB re 0dBu
Dynamic Range: 85dB

Approvals

FCC, CSA, CE

Matrix Mixing Parameters

12x12 matrix

Auto Mixer Parameters

Number of Open Microphones (NOM)
PA Adaptive Mode
First Mic Priority Mode
Last Mic Mode
Maximum # of Mics Mode
Ambient Level
Gate Threshold Adjust
Off Attenuation Adjust
Hold Time
Decay Rate

Microphone Input Configuration

Input Gain Adjust
Mic or Line Level
Phantom Power on/off
Echo Cancellation on/off
Mute on/off
Chairman Override on/off
High Pass Filter
EQ Adjust
AGC on/off
Auto Gate/Manual Gate/Gate override
Adaptive Ambient on/off

Set-up Software

AP-Ware