

ECS

Networked Echo Cancellation System

ECS Features

- Acoustic Echo Cancellation with no compromises from 20 Hz to 22 kHz.
- Dynamic Echo Cancellation time: Shifted - Standard 130 ms, max. 260 ms.
- Noise reduction: 6 – 20 dB.
- Up to 16 AEC software modules.
- From 4 to 24 input / output channels.
- Powerful 48 channel Networking.
- ATEIS-NET ports with up to 32 multi-unit system designs.
- Powerful networked auto mixer, for up to 256 delegates within one system.
- Programmable logic in-and outputs.
- Ethernet port for remote diagnostic and system configuration.
- Support IP telephone with SIP protocol and G.711 G.722 voice codec via Ethernet port.
- Up to 16 broad-band AEC software modules.
- From 4 up to 24 balanced mic/line inputs/outputs combinations (See type number specification).
- Serial port for third-party RS-232 remote control.
- Remote control bus for dedicated control panels.
- ATEIS-STUDIO configuration software for Windows®.
- Modular I/O with pre-definable processing.
- RoHS compliance, CE marked RoHS compliance, CE marked.
- Ability to select, view, and adjust within ATEIS-STUDIO graphical user interface:
 - Acoustic Echo Cancellation
 - Mixers: standard, automatic, matrix, combiners
 - Local Echo Suppressor
 - Equalizers: graphic, parametric, feedback
 - Filters: HPF, LPF, high shelf, low shelf, all-pass
 - Gate: Voice, mono, stereo, with Side chain
 - Crossovers: 2-Way, 3-Way and 4-way
 - Dynamics: leveler, comp/limiter, ducker, ANC
 - Routers: 2x1 ~ 768x1 and 384x384
 - Delays: 0 ~ 2000 ms
 - Controls: levels, presets, logic, RS-232, etc.
 - Meters: signal present, peak, RMS
 - Generators: tone, pink-noise, white-noise
 - Message player & Recorder.



Versions

	Inputs	Outputs	Channels AEC
ECS 111	4	4	4
ECS 211	8	4	4
ECS 212	8	4	8
ECS 222	12	8	8
ECS 312	12	4	8
ECS 313	12	4	12
ECS 322	12	8	8
ECS 323	12	8	12
ECS 413	16	4	12
ECS 424	16	8	16
ECS 514	20	4	16
ECS 604	24	-	16
ECS T	Optional telephone hybrid card		

The ECS Networked Echo Cancellation System is a digital signal processor featuring an impressive DYNAMIC Automatic Echo Cancellation based on our own developed wide band acoustic echo cancellation algorithm.

ECS is designed specifically to provide outstanding clear audio in teleconferencing applications. The ECS delivers true 20 Hz to 22 kHz bandwidth during multiple participant conversations, with natural full duplex transmission of speech with no latency, including double talk.

Special designed features like Local Echo Suppressor, Noise reduction, Remain Echo Suppressor and Voice Gate greatly improve the audio quality of your teleconferencing system.

ECS features up to 16 wide-band AEC software modules and up to 24 configurable hardware electronically balanced inputs and/or outputs, telephone interface with line & set connections, Ethernet port for software configuration/control, serial port for third-party RS-232 remote control and remote control bus (RS485) for dedicated control panels like the URC-programmable remote controllers. Thanks to this modularity, the ECS can be used in small or big systems.

ECS

Networked Echo Cancellation System

ECS CHARACTERISTICS

- Max input: +15 dBu.
- Bandwidth: 20 Hz to 20 kHz.
- Phantom power soft config 48 VDC.

AUDIO OUTPUTS

- Audio output impedance: 100 Ohms (balanced, screw terminal).
- Max output +15 dBu.
- Bandwidth 20 Hz to 20 kHz.
- 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

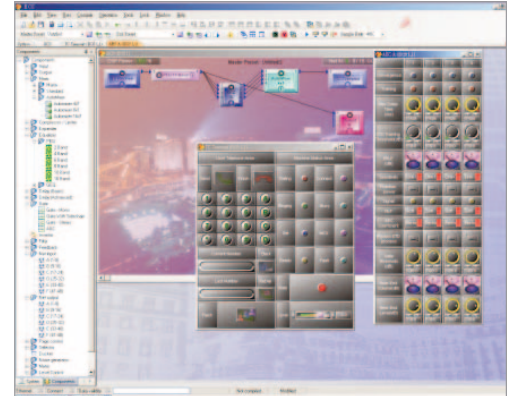
- RS232 port: for ATEIS or third party equipment remote control.
- RS485 port: for Remote data control.
- RJ45 port: for PC control and system set up using ATEIS-STUDIO software.

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 I/O

- 8 Control inputs either analog or Logical (contacts).
- 2 logic outputs (Dry contacts).



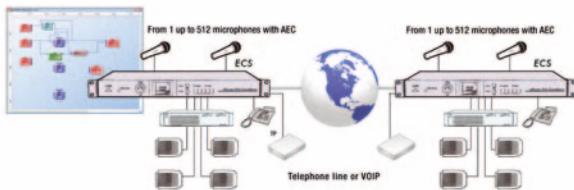
Driven by the intuitive ATEIS STUDIO graphical user interface, the ECS includes a broad selection of audio components, routing options and signal processing. Useful features like Automatic Gain Control, Feedback killers, Meters, Compressor-limiter, Equalizer, Matrix and Automatic Microphone mixers are also part of the ECS DSP component library.

Internal processing of audio signals can be fully programmed to suit the client's application with enhanced management. 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 ECS. The internal system design is completely user definable via PC software, and can be controlled via dedicated software screens, third party devices like Crestron™, AMX™ or Vity™, and a variety of optional remote controls.

Multi-unit ECS-systems can be created utilizing ATEIS NetLink which provides 48-channels broadband audio distribution, linking up to 32 units in a dedicated network creating a through 768 channels audio-conferencing system.

The ECS system can use either telephone lines with the telephone interface or internet links thanks to a reliable VoIP stream with SIP protocol. Telephone hybrid capabilities include: initiation of outgoing calls detection and answering of incoming calls.

Audio Telecommunication



Networked Echo Cancellation System

