

FLEXIBLE
CONFIGURABLE
INTUITIVE

Audio, Video and
Communications
for Broadcasters



PHOENIX STRATOS

Dual Multi-Format Full Duplex Audiocodect

Dual Stationary Audiocodect with IP, ISDN and X21/V35 connectivity.

Two stereo, bidirectional audiocodects for communications over IP, ISDN and X21/V35 lines. Allows the sending of two independent stereo/dual or four mono signals to different receivers.

Unique advantages from the design. Fully independent dual channels for program and coordination or backup, each one with its respective returns, and advanced user interface.

Physical user interface in the front panel and control software running on a PC or set of PCs, that allows local or remote control of a single unit or pool of units.

Compatible with most codecs from other manufacturers on IP and ISDN interfaces: Supports SIP and the most popular encoding algorithms and is 100% compliant with N/ACIP EBU Tech 3326 technical recommendations.

IP Advantages. Adaptive buffer to absorb network jitter. Automatic IP parameter configuration through DHCP. Automatic adjustment of the reference clock to synchronize both ends. FEC. It sends a same stream to multiple destinations with multiple-unicast.

Remote monitoring. Includes SNMP server which allows the user to monitor its status, alarms, etc. together with other pieces of equipment in the system, even from different manufacturers, by simply using any standard SNMP client.

AEQ SIP Server. AEQ SIP Server - To simplify IP connections, AEQ offers its own SIP server and with no additional cost.

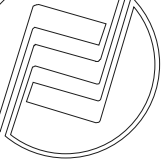
Ancillary data channel. Offers transport of embedded auxiliary data via ISDN or RTP stream over IP, in order to control equipment at the remote end.

GPIs and GPOs. It incorporates 4 general purpose inputs and outputs for signalling and control.

Includes encoding algorithms for any purpose. Includes the compulsory algorithms according to N/ACIP EBU Tech3326 technical recommendation plus the AEQ LD low delay algorithms. AAC algorithms can optionally be supplied.

Analogue and Digital Professional Audio. The unit includes two pairs of line level XLR balanced analogue inputs and outputs, and AES/EBU digital I/O's.

Silent operation. This device is cooled by natural convection in order to be suitable for Studio installation. No have been installed.



Technical Specifications

Dual Multi-Format Full Duplex Audiocodect

Inputs and Outputs

Analog audio inputs

- 4 x XLR female. 9Kohm. Electronically balanced.
- Professional line level.

Analog audio outputs

- 4 x XLR male. Output impedance < 100 ohm. Electronically balanced. Professional line level.

Digital audio I/O

- DB15 connector. 2 AES/EBU interfaces. SRC on inputs.

Headphones Output

- 1 x ¼" Stereo Jack, with front panel volume control.

Synchronization: AES/EBU output can be synchronized with the inputs sampling frequency.

Audio specifications

- Nominal input level. 0dBu.
- Maximum input level. +22dBu.
- Nominal output level. 0dBu.
- Maximum output level. 20dB above nominal level.
- Max. distortion linear audio <0.003%.
- THD + N in SRC @1KHz: -117 dB.
- Dynamic range for linear audio >105dB.
- Crosstalk <-70dB.
- Frequency response: +/- 0.2dB.
- 50Hz – 15KHz in MPEG 1 L II.
- 20Hz – 20KHz in MPEG 4 AAC*, and for linear audio PCM.
- 50Hz – 7KHz in G722.
- 50Hz - 3KHz in G711.
- Analog I/O: A/D and D/A 24 bit Sigma-Delta converters, 48 kHz max. Modes: Mono, Dual Mono, Stereo.

Communications interfaces

IP communications interface

- Ethernet port. LAN 10/100 base T.
- Connector RJ45.
- Fully compliant N/ACIP EBU Tech 3326.
- SIP: Compliant with EBU-Tech 3326 recommendation.

ANCILLIARY DATA in IP: DB 9. 9,6 Kbps., 19,2 kbps. or 38,4 Kbps. flow embedded in the RTP stream.

X.21/V.35 communications interface: DB25, binary rates of 64/128/256Kbps.

ISDN / RDSI communications interface: Supports use of Euro ISDN and National-1 communications module. With up to two B channels supported per module. "S" interface (2B+D) Euro ISDN compliant (ETS 300 012, ETS 300 125, ETS300 102), RJ-45 connector. "U" interface (2B1Q) ANSI compliant (ANSI T1.601- 1992, T1.602-1996, T1.607 - 1998), RJ-11 connector.

ANCILLIARY DATA in ISDN: DB 9. 9,6 Kbps flow embedded into the audio data stream.

GPIO: DB15 connector with 4 optocoupled GPIs and 4 open collector GPOs.

Other features

- Automatic backup, selectable between IP, V35 and ISDN.
- Multicast IP: transmission and reception.
- Multiple-unicast in RTP-raw mode: allows the unit to send a same stream to up to 10 different IPs.
- SIP: according to EBU-Tech 3326 recommendation. Possibility of operation with or without SIP Proxy server.

Encoding algorithms

- OPUS** with Fs= 48KHz, mono, stereo, with 3 mono and 4 stereo presets. Bit rates between 12 and 256Kbps. Audio bandwidth between 6 and 20 kHz.
- G711** A law, μ law (64kbps, low delay, 3.5 KHz audio bandwidth).
- G722** (64 Kbps, low delay, 7 KHz audio bandwidth).
- AEQ-LD** Fs=16, 32 or 48KHz, mono or stereo. Bit-rates between 64 and 384 Kbps, audio bandwidths between 7 and 20 KHz.
- MPEG1 & 2-LII**, Fs between 16 and 48 KHz, mono, stereo, dual channel and joint stereo. Bit-rates between 64 and 384 Kbps. Audio bandwidths between 10.5 and 16.5 KHz.
- AAC-LC*** high quality, with Fs=24, 32 and 48 KHz, mono, stereo, MsStereo, bit-rates between 32 and 256 Kbps, audio bandwidths between 9 and 20 KHz.
- AAC-LD*** high quality and low delay, Fs=48 KHz, mono, stereo and MsStereo. Bit-rates between 32 and 256 Kbps, audio bandwidths between 8 and 20KHz.
- PCM (linear)** very low delay and transparent quality. Fs=48 KHz or 32 KHz @ 12, 16, 20 or 24 bits/sample, mono or stereo (bit-rates between 576 and 2304 Kbps), audio bandwidths between 15 and 20 KHz.
- Smart RTP** call-initiation protocol that simplifies connection to compatible codecs.

General Features

- Range of operational temperature: -10 to + 45 ° C (14 to 114 ° F).
- Front panel control.
- 1 x 12 key, alphanumeric keypad.
- 1 x OLED display.
- 4 x function keys (used with display menus).
- 1 x rotary encoder and escape key (used with display menus).
- 4 x 14 segment LED VU meters.
- 4 x comm status LED indicators.
- Configuration Wizard (internal menu).

Dimensions and weight

1RU, 482 x 44 x 280 mm ; 19" x 1.75" x 11".

Weight: 3,5 kg (7,7 lbs).

Redundant Input power: 110 240 V AC, 50 60Hz. 12w.

Autoranging. 3 PIN IEC connector *

Ventilation. Natural convection – totally silent. Apt for in-Studio use.

* Specifications subject to change without prior notice.

* The AAC encoding algorithms are optional for the Phoenix AudioCodecs.

Phoenix Stratos codecs system at Atresmedia TV, Madrid 2016

Phoenix Stratos codecs system were at Eurovision, London 2012

Phoenix Stratos and Venus IP Audiocodect at VGTRK, National Russian Radio Television

AEQ - USA

Phone: +1 (954) 581 79 99

e-mail: sales@aeqbroadcast.com

AEQ - KROMA MÉXICO

Phone: +5554132716

e-mail: creyna@aeq.es

INTERNATIONAL SALES

Margarita Salas, 24 · 28919 · Leganés · Madrid · Spain

Phone: +34 91 686 13 00 · Fax: +34 91 686 44 92

e-mail: aeqsales@aeq.es · website: www.aeq.eu