

Audio, Video and  
Communications  
for Broadcasters



# Product

# Catalogue



## Consoles, routers and digital interfaces for broadcasting

A complete range of audio mixing consoles, routers and digital interfaces for broadcasting and production that places AEQ in a leading position in terms of design and manufacturing. AES 67 IP connectivity based on DANTE™ makes installation and use easy and flexible. Take advantage of this IP multichannel link technology in our whole range of mixing consoles, routers and digital audio interfaces!



### ARENA. A console for the demanding

Up to 75 motorised faders with 256 Inputs and 256 Output summing buses. No limits in number of N-1 buses. Unmatched modularity and flexibility in regards to programming of the console. Multi-channel connectivity and networking via IP or MADI. Optional control and monitoring touch screen.



### FORUM IP. Modular audio mixing console

Adapted to all the levels of users. Up to 24 faders, 128 Inputs and 128 Output buses out of which 32 are summing. Up to 8 N-1 buses and with Multi-channel connectivity and networking via IP or MADI. Digital telephone hybrids, virtual control surface, and control and monitoring touch screen, can be integrated optionally.

#### Forum IP Compact

Self-contained Mixing Console - the input and output cards and control surface are housed in one single chassis.

#### Forum IP Split

Split version - the control surface modules are housed in separate chassis from the Engine or Core that holds the Input, Output, Routing and Mixing electronics.



### CAPITOL IP. Digital console with fixed composition

Digital mixer with multi-channel connectivity via IP or MADI. Very compact and ergonomic, with great capacity for programming functions. Optional telephone hybrids. Available virtual control surface and touch screen for control and monitoring.



### NETBOX 32AD, NETBOX 8AD and NETBOX 4 MH Audio connection interfaces for Audio over IP

Interfaces for analogue and digital audio signals to/from AoIP multi-channel network transmission. Essential to be able to insert audio signals coming from remote sources, cabins, central controls and other studios, into consoles and matrices with AoIP connectivity.

**Netbox 32 AD** features 16 mono analog line and 8 digital stereo Inputs and Outputs.

**Netbox 8 AD** features 4 mono analog line and 2 digital stereo Inputs and Outputs. One of the digital I/O's can be configured as a USB port.

**Netbox 4 MH** features 4 mic / line switchable inputs and 4 headphones / analog line outputs. It also provides support for the studio signaling and remote control **STUDIOBOX**.

#### 32 AD MX and NETBOX DSP

#### TDM matrices with IP inputs and outputs

**Netbox 32 AD MX** is a summing and distributing matrix of 64x64 inputs and outputs: 32 IP, 16 analog, and 16 digital.

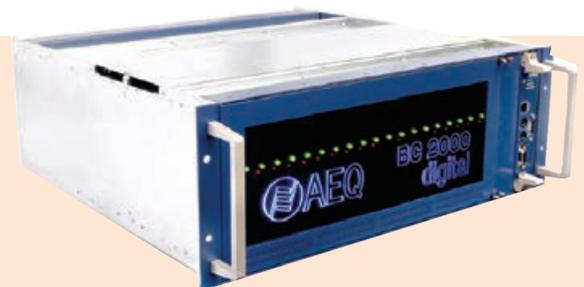
**Netbox DSP** is a summing, distributing and processing matrix, in versions of between 64 and 160 IP inputs and outputs.



NEW

### BC-2000 D ROUTER. TDM audio matrix up to 5.120 x 5.120 circuits

"Non-blocking" structure – all inputs to all outputs simultaneously. With digital and analog audio I/O interface cards and long distance MADI Multi-channel links through SFP Transceivers or proprietary links with over 1000 channels per fiber. AoIP multi-channel network connectivity is also available through specific AoIP DANTE™/AES67 Interface cards.





## Communications

Our long and extensive track record in the Broadcasting industry is an invaluable asset when developing broadcast communication equipment for all types of telecommunication infrastructures and applications, including outdoor broadcasts.

### SYSTEL IP. IP Telephone System

Handles calls from Service providers, local switchboards and even audiocodex, ISDN and conventional telephony. The system provides great savings on communication costs and remarkable improvement with regards to audio quality. SYSTEL IP is essential for the Talk Show but is also available in a "TV" version for coordination and technical intercommunication. Now with DANTE™ connectivity and control by IP telephone set with touch screen, SYSTELSET+.



### PHOENIX ALIO. Portable IP AudioCodec

Easy to use in the most varied scenarios, ALIO can connect to other equipment from most manufacturers using SIP protocol according to N/ACIP standard by EBU. If connected with another AEQ codec, it allows to use the SMART RTP connection system, facilitating the start-up and control - even remotely - and with OPUS algorithms. 4 microphone inputs, one of these Inputs can be configured as a stereo line level input, bass and treble controls for all Inputs, test tones, one or two bidirectional mono or stereo channels, HELP function. Two stereo headphone outputs and a stereo line output.



### PHOENIX STRATOS

#### Double AudioCodec with control on the front panel

NOW FEATURING OPUS ENCODING ALGORITHMS AND SMART RTP CONNECTION MODE. In addition to software with multi-user and multi-equipment option and remote access to the equipment, STRATOS counts on IP, ISDN and V35 / X21 connectivity plus front panel controls that facilitate the operations.



### PHOENIX VENUS and VENUS 3

#### Dual line IP AudioCodecs

NOW FEATURING OPUS ENCODING ALGORITHMS AND SMART RTP CONNECTION MODE. Two simultaneous bidirectional stereo transmissions with different formats and qualities. Connects with equipment from other manufacturers with SIP protocol and in compliance with the N/ACIP standard of the EBU. The unit has balanced analogue audio inputs and outputs through XLR connectors as well as digital audio AES/EBU I/O's. dual network port, dual RS232 ancillary data link and dual power supply. Optional DANTE™ local network audio inputs and outputs and 48V DC supply input version are available.



### PHOENIX MERCURY. IP AudioCodec

NOW FEATURING OPUS ENCODING ALGORITHMS AND SMART RTP CONNECTION MODE. A very cost efficient, high performance codec. Able to perform a bidirectional stereo transmission using a wide range of encoding formats. Balanced analogue audio inputs and outputs with optional Digital I/O's. Software Control with multi-user and multi-equipment option and remote access to the equipment.



### TH-03. Digital Telephone Hybrid

For analogue telephone lines (POTS or PSTN). With great side tone rejection, able to maintain a high quality voice transmission thanks to its automatic adjustment of the line impedance through the incorporation of an exclusive voice bandwidth expansion system (compatible with the rest of AEQ telephone hybrids and AudioCodecs). Balanced analogue audio inputs and outputs with optional Digital I/O's. The dual hybrid allows multiplexing both callers, thus saving you I/O channels on your mixer.





## Intercom Systems

The new KROMA by AEQ Intercom Systems are the perfect choice for audio communication solutions. Our systems range from 1024x1024 broadcast quality audio sources down to our EasyNET 4-port system an IP based Party-line system not requiring an Intercom Matrix. Our intercom systems are tangible representations of high-performance, cost-efficient and flexible broadcast communications as for example our Xplorer wireless system that adds mobile terminals to all our other systems.

### CONEXIA SYSTEM

It represents a leap forward and a new concept in regards to intercom systems as it becomes a global audio solution. Capacity of up to 1024 x 1024 cross-points and is based upon a modular system of audio I/O cards. Possibility to integrate intercom and broadcast audio sources into the same matrix, with 48 KHz 24 bits sampling and a 100 % redundant system. Compatible with all KROMA intercom panels, and expands the interface options with KROMA (telephone, GSM) and AEQ (MADI, fiber optics, IP, DANTE™, etc.) cards, and AEQ communications equipment (Systel IP TV and Phoenix Audiocoders).



### CROSSNET SYSTEM

Compact intercom matrix with AoIP multi-channel connectivity. Broadcast-quality audio. Provided in versions from 40 up to 168 x 168 ports, 128 of them can be AoIP featuring DANTE™ technology, compatible with AES67 standard, which can easily be connected using existing Ethernet networks through conventional routers and switches. The system also has 12 analog ports, 8 digital ports, and 20 AoIP ports with KROMA Standard low bit-rate, enabling the connection of wireless intercoms, ancillary equipment and KROMA panels.



### TH5000 and TB3000 SYSTEMS

TH5000 hybrid and compact system. It has analogue ports, digital ports and low-bit rate IP ports using the KROMA Legacy standard. This system is expandable by license from 12 to 24 and 48 ports. TB3000 compact Intercom system featuring analogue and digital ports using the KROMA protocol. This system can grow from 12 ports up to 20 ports. The activation of additional ports is through software upgrade.



### EASY-NET SYSTEM

EasyNET is the new 4 channel party-line system from Kroma by AEQ. This system does not require a matrix and is based on three IP terminals (racked panel, desktop panel, and belt-pack), the system is one of the easiest to install and configure on the market, very similar to a LAN network. The installation consists in the simple connection of up to a maximum of 28 IP based terminals to a single Network, saving space, time and money.



### TP8000 USER PANELS

These are our top-of-range user panels, offering broadcast audio quality. Audio is digitized and processed using 24 bits at a sampling frequency of 48 kHz. Bandwidth from 20Hz to 20kHz with negligible distortion and noise levels. The panels feature ports for Analog, Kroma-Digital, IP Kroma and high-quality DANTE™ connectivity. Digital audio processing: acoustic echo cancelling, automatic power and tone adjustment to each user's voice. Expander and ambient noise gate. Very optimized acoustics for optimal sound intelligibility and clearness. 16 user keys, rack-mounted or desktop versions. Expansion panels can be cascaded to build panels with up to 80 physical keys with 4 pages. Compatible with any Kroma by AEQ intercom matrix.



### XPLORER

#### New Wireless Intercom system

Xplorer is more than a belt-pack, it's an authentic wireless intercom user panel. Based on Wi-Fi technology, it is equipped with a 4 shortcut keys user interface -arranged in pages-, another two programmable keys, and a multifunction screen. It can operate associated with an intercom matrix or as a Party-Line terminal. Moreover **Xvirtual** is a 16 key virtual panel, that can be installed on Windows and iOS operating systems.





## Broadcast monitors

KROMA by AEQ Broadcast Monitors have been designed to meet a very wide range of requirements for video monitoring, especially in production centres or distribution of programs.

### LM9000 SERIES

The series LM9000 Broadcast Monitors from KROMA by AEQ are designed with a 10 bit Quad processor and allows us to display UHD/4K Signals on the monitors. The available Monitor sizes are 55" (3840 x 2160), 31" (4096 x 2160) and 24" (3840 x 2160). The Monitors can reproduce 4K signals in Single and Quad-Link with Square-division and 2-SI formats. They are also incorporating HDR technology in order to be able to reproduce Video Signals with really high levels of Contrast, Luminance and Sharpness. With Waveform and Vectorscope tools.



### LM8000 SERIES

LM8000 series monitors are top of the range instruments to measure and verify video signals in broadcast and production centres, with FULL HD resolution, available in 9", 18.5" and 24" sizes. They feature a new dual processor offering increased colour-depth, scaling and de-interlacing. They can be remotely controlled with our new version of PC application. Other features include: closed caption, dual split mode, internal video-pattern generation, colour auto-calibration, possibility to select between different gamut. Also incorporates an SFP module for different input modes: IP SMPTE 2022 video, digital parallel input or SDI via BNC connectors. With Waveform and Vectorscope tools.



### LM7000 SERIES

LM7000 series monitors are compatible with all types of Video Inputs, including 3G-SDI and Digital Component Input (CDI). Precision VU-meters, phasemeter, IMD and tally on screen, Waveform, Vectorscope, Picture-in-Picture (PiP) and Picture-by-Picture (PbP) and Dual-Split. 9", 18.5", 24" and 46".



### VF7000

7" FULL HD View Finder monitor has features equivalent to LM7000 series, but it is specifically designed to be attached to a camera, for professional image capture. incorporates front and back Tally, stand support, Anton Bauer format battery adapter and 12V or 24V power supply.



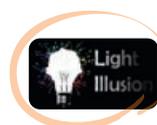
### QS7000 SERIES

QS series monitors with built-in quad-split and 10 inputs features Waveform and Vectorscope tools, IMD (In-Monitor Display) and high resolution VU-meters, onscreen clock and the option to turn 4 video inputs into active loop outputs. They have two DVI-I inputs (YPbPr, VGA and DVI video modes) and 8 multi-format auto-detecting video inputs (composite and 3G/HD/SD-SDI signals). 18.5" and 24".



### LM7500 SERIES

LM7500 series from KROMA by AEQ, feature improvements with new audio and video inputs and outputs, including the 3G-SDI option. It has implemented the identification and calibration of the signal, precision Vu-meters and headphones output, In-Monitor display (IMD), tally on screen, Waveform and Vectorscope. There are different models available with different input configurations: 2x9", 2x7", 3x5" and 4x4".



All KROMA by AEQ 8000 and 7000 series monitors are compatible with LightSpace CMS for the correct adjustment of colorimetry.

## AUDIPLUS AUTOMATION SYSTEM

### For the production and broadcasting of audio for radio and TV

Automation tool for Play-out, editing and automatic programming of audio broadcast for radio and TV. With Analogue, AES/EBU Digital USB Digital and DANTE™ AES 67 AoIP Multichannel Protocol.



## VISUAL RADIO SYSTEMS

Seamless integration of AEQ digital consoles and the AEQ NETBOX AoIP Interfaces as command sources for the broadcast automation switches and camera controls of Broadcast Pix, to generate a complete content of visual radio over the internet or even by a TV channel.



## OLYMPIA 3. Commentary unit for sports events

State-of-the art Digital Commentary Unit and Intercom User Panel with AoIP Multichannel Connectivity through DANTE™ / AES67 Protocol, PoE powered, IP Video transport, local mix and processing.

## EVENT REFERENCES

Among our references you will find both Summer and Winter Olympics, Athletics World and Continental Championships, Basketball, Handball, Ice Hockey, Skiing, Cycling, Swimming and Formula 1 GP. Systems have also been delivered for mobile units belonging to large broadcasters and also fixed installations in sporting arenas.



## TURN-KEY SYSTEMS

The feedback between product developments, product testing and practical implementation in complex environments is vital when designing equipment with continually increasing requirements in regards to usefulness and reliability. At the same time, the support from our factory provides security and peace of mind to our customers who trust us with their projects. We are regularly being trusted with the responsibility of designing, engineering, planning and execution of turnkey projects for broadcast studios, central controls, mobile units, radio automation systems. Turnkey equipment for complete radio stations, recording studios or broadcast production centers.



### AEQ - SPAIN (HQ)

Margarita Salas, 24  
28919 Leganés · Madrid · Spain  
Tel.: +34 91 686 13 00  
Fax: +34 91 686 44 92  
website: [www.aeq.eu](http://www.aeq.eu)  
e-mail: [aeqsales@aeq.es](mailto:aeqsales@aeq.es)

### AEQ - CATALUNYA

Tel.: +34 93 414 03 96  
e-mail: [nolivella@aeq.es](mailto:nolivella@aeq.es)

### AEQ - PORTUGAL

Tel.: +35 1 261 101 874  
e-mail: [apicarra@aeq.es](mailto:apicarra@aeq.es)

### AEQ - INDIA

Tel.: +91 987 363 32 11  
e-mail: [nirav@aeq.es](mailto:nirav@aeq.es)

### AEQ - KROMA MEXICO

Tel.: +55 54132716  
e-mail: [creyna@aeq.es](mailto:creyna@aeq.es)

### AEQ - USA

Tel.: +1 (954) 581 79 99  
e-mail: [sales@aeqbroadcast.com](mailto:sales@aeqbroadcast.com)