



**AeroAudio**

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# AeroAudio

WWW.AEROAUDIO.EU

**AeroAudio designs and manufactures high quality broadcast solutions.**

Due to the broadcast engineering background of our team we know what's playing and develop the best solutions for your need from a customer question or practical issue to the final product; our years of broadcast industry and product development knowledge is embedded.

Our goal is to design and make the most effective and easy to use products that solve the nagging practical headaches like 'how to connect,' 'how to control' or 'why is it broke again,' that technicians and users face in everyday broadcast. Our rock solid field proven quality designs are build to last for years.

Not sure? Give it a try, we know you'll love it.

## MICROPHONE ON-AIR SWITCH 3

E.D.O. - LED IP - UNO - QUATRO - QUATRO IP

## HEADPHONE AMPLIFIER 8

TABLE MOUNT - FLUSH MOUNT - AES67 - DSP

## BLUETOOTH TRANSCEIVER 11

## MPX-DETECTOR 12

2LCD - 3LCD

## STATION AUDIO CONTROL 14



## MOS E.D.O.

*Coming soon*



 MOS IP Mic On-Air Switch with ethernet control protocols

 Mic Pre-amp with DSP (digital soundprocessing)

Convert into AES67

 Headphone Amplifier AES67

 1 x analog balanced output (for adding extra analog headphone amps)

# MOS LED IP

 Full spectrum RGB + W LED controller

 Web based configuration

 IP controlled switching

 There are 4 methods to work with MOS LED with IP:

 TCP COMMANDS / STRINGS

 TELOS AXIA X-NODE / LIVEWIRE DRIVER

 TELOS AXIA QOR/IQ/IQX

 DHD LOGIC

 There are 2 methods to work with MOS LED with physical GPI contacts:

 5VDC control voltage (10mA)

 Open and closed contact

 12 and 24 volt standard RGBW ledstrip compatible

 12 or 24 volt DC input

 Close contact alarm input



*manual*



The MOS-LED-IP is not just your standard ledstrip controller. Designed specially for studio use it allows you to change the color of a RGB-W ledstrip automatically on fader up, incoming telephone call, alarm or any trigger you want.

There are 4 methods to work with MOS LED with IP protocol:

- TCP COMMANDS / STRINGS
- TELOS AXIA X-NODE / LIVEWIRE DRIVER
- TELOS AXIA QOR/IQ/IQX
- DHD LOGIC

There are 2 methods to work with MOS LED with physical GPI contacts:

- 5VDC control voltage (10mA)
- Open and closed contact

You can use any RGB-W ledstrip (12-24Volt DC)

The power supply and the ledstrip are not included.



# MOS UNO



 POWER LED INDICATOR

 MIC OUT (TO STUDIO)

 MIC ON-AIR ARM

 GPI STUDIO

 2 ways to switch the  
MIC ON-AIR SMART SWITCH

 5VDC control voltage (10mA)

 Open and closed contact

 12VDC POWER INPUT



Suitable for signaling of on-air lamps for microphones. e.g. YELLOWTEC MIKA ON-AIR MIC ARM.  
ON-AIR = red  
OFF-AIR: white

**POWER LED INDICATOR**  
The LED will light up when the 12VDC power supply is present.

**12VDC POWER INPUT**  
Ratings: 12VDC (9~18 volt) at 250mA. The polarity is not important  
Power supply is included, options: 115V/USA - 230V/AUS - 230V/EUR - 230V/UK

**MIC OUT (TO STUDIO)**  
Microphone output; connect to your equipment with standard MIC cable (XLR 3pin)  
- PIN1: Ground (Shield)  
- PIN2: Positive (Red)  
- PIN3: Negative (Blue)

**MIC ON-AIR ARM**  
Connect to the MIC ON-AIR ARM with standard MIC cable (XLR 5pin)  
- PIN1: Ground (Shield)  
- PIN2: Positive (Red)  
- PIN3: Negative (Blue)  
- PIN4: LED (Yellow)  
- PIN5: LED (Black)

The supply voltage may be between 9 and 18 volts DC; the polarity is not important.

On pin 1 and 6 of the 9 pin sub D female or on pin 1 and 2 of the RJ45 a voltage can be applied. Again, a DC voltage; the polarity is not important and the voltage may be between 5 and 18 volts

On pin 2 and 7 of the 9 pin sub D female or on pin 3 and 4 of the RJ45 a switching contact.

On pin 3 and 8 of the 9 pin sub D female or on pin 5 and 6 of the RJ45 a toggle function to let the white light signal burn continuously or fluctuate. When activated, the LED on the box will flash briefly. Flashing twice means the white light is on continuously, flashing three times means the white light will fade in and out after approximately one minute.

RJ11 may only be used to connect to the MOS quatro in sync with the white light signaling of the quatro.

*manual*



# MOS QUATRO



 4X LED INDICATOR

 4X MIC OUT (TO STUDIO)

 4X MIC ON-AIR ARM

 GPI STUDIO

 2 WAYS TO SWITCH THE MIC ON-AIR SWITCH

 5VDC CONTROL VOLTAGE (10mA)

 OPEN AND CLOSED CONTACT

 12VDC POWER INPUT

Suitable for signalling of on-air lamps for microphones. e.g. YELLOWTEC MIKA ON-AIR MIC ARM.  
ON-AIR = red  
OFF-AIR: white

#### STATUS LED INDICATOR

The LED will light up when the 12VDC power supply is present.

#### 12VDC POWER INPUT

Ratings: 12VDC (9~18 volt) at 250mA. The polarity is not important  
Power supply is included, options: 115V/USA - 230V/AUS - 230V/EUR - 230V/UK

#### 4x MIC OUT (TO STUDIO)

Microphone output; connect to your equipment with standard MIC cable (XLR 3pin)

- PIN1: Ground (Shield)
- PIN2: Positive (Red)
- PIN3: Negative (Blue)

#### 4x MIC ON-AIR ARM

Connect to the MIC ON-AIR ARM with standard MIC cable (XLR 5pin)

- PIN1: Ground (Shield)
- PIN2: Positive (Red)
- PIN3: Negative (Blue)
- PIN4: LED (Yellow)
- PIN5: LED (Black)



*manual*



# MOS QUATRO IP



4X LED INDICATOR

4X MIC OUT (TO STUDIO)

4X MIC ON-AIR ARM

GPI STUDIO

THERE ARE 4 METHODS TO WORK WITH MOS QUATRO IP:

TCP COMMANDS / STRINGS

TELOS AXIA X-NODE / LIVEWIRE DRIVER

TELOS AXIA QOR/IQ/IQX

DHD LOGIC

12VDC POWER INPUT

*manual*



Suitable for signalling 4 on-air lamps for microphones. e.g. YELLOWTEC MIKA ON-AIR MIC ARM.

There are 4 methods to work with MOS Quatro IP:

- TCP COMMANDS / STRINGS
- TELOS AXIA X-NODE / LIVEWIRE DRIVER
- TELOS AXIA QOR/IQ/IQX
- DHD LOGIC

ON-AIR: red  
OFF-AIR: white

STATUS LED INDICATOR

The LED will light up when the 12VDC power supply is present.

12VDC POWER INPUT

Ratings: 12VDC (9~18 volt) at 250mA. The polarity is not important  
Power supply is included, options: 115V/USA - 230V/AUS - 230V/EUR - 230V/UK

4x MIC OUT (TO STUDIO)

Microphone output; connect to your equipment with standard MIC cable (XLR 3pin)

- PIN1: Ground (Shield)
- PIN2: Positive (Red)
- PIN3: Negative (Blue)

4x MIC ONAIR ARM

Connect to the MIC ON-AIR ARM with standard MIC cable (XLR 5pin)

- PIN1: Ground (Shield)
- PIN2: Positive (Red)
- PIN3: Negative (Blue)
- PIN4: LED (Yellow)
- PIN5: LED (Black)



# HEADPHONE AMPLIFIER



AVAILABLE IN TWO VERSIONS:

TABLE MOUNT

FLUSH MOUNT

POWDER-COATED STEEL ENCLOSURE

HIGH POWER CLASS AB AMPLIFIER

RJ45 LINK

3.5 AND 6.35MM JACK

The AeroAudio HP AMP is a superb well designed studio quality headphone amplifier made for Jocks and producers that hides away and just does the job you need it for.

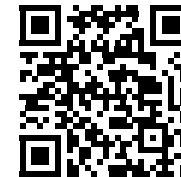
The +20 year field proven design ensures your ears are safe from annoying cracking audio on touching the volume knob. With a double output for both 3.5 and 6.3mm jack's makes the annoying 'where did I put it' adapters obsolete, just simply connecting all types of studio headphones.

Connecting it has never been so easy. The RJ45 connection is based on international standard cat5 audio pin-out that you can directly link to a node or standard adapter cable. Need more? Just link an other Amp on the RJ45 link output with standard cat cable and you're done. Not only audio but power is provided to the next Amp as well.



## Tablemount

The rock solid miniature casing hides away under your desk with a special design so your knees are safe from painfully bumping it. A small bright shining LED let's you find the Amp instantly.

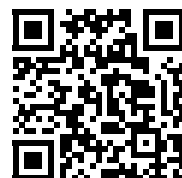


*manual*



## Flushmount

The rock solid casing hides away in your desk.



*manual*



# HEADPHONE AMPLIFIER DSP

AVAILABLE IN TWO VERSIONS:

TABLE MOUNT

FLUSH MOUNT

POWDER-COATED STEEL ENCLOSURE

HIGH POWER CLASS AB AMPLIFIER

RJ45 LINK

3.5 AND 6.35MM JACK

GAIN CONTROL

3 BAND EQ

OUTPUT LIMITER

SUPERB S/N RATIO

The AeroAudio HP AMP DSP FM is a superb well designed studio quality headphone amplifier made for Jocks and producers that hides away and just does the job you need it for. A DSP controlled class AB headphone amplifier with gain control, three-band EQ and output limiter.

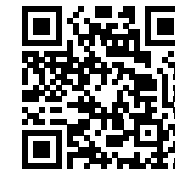
With a double output for both 3.5 and 6.3mm jack's makes the annoying 'where did I put it' adapters obsolete, just simply connecting all types of studio headphones.

Connecting it has never been so easy. The RJ45 connection is based on international standard cat5 audio pin-out that you can directly link to a node or standard adapter cable. Need more? Just link an other Amp on the RJ45 link output with standard cat cable and you're done. Not only audio but power is provided to the next Amp as well.



## Tablemount:

The rock solid casing hides away under your desk with a special design so your knees are safe from painfully bumping it. A small bright shining LED let's you find the Amp instantly.



## Flushmount

The rock solid casing hides away in your desk.



# HEADPHONE AMPLIFIER AES67

AVAILABLE IN TWO VERSIONS:

TABLE MOUNT

FLUSH MOUNT

POWDER-COATED STEEL ENCLOSURE

HIGH POWER CLASS AB AMPLIFIER

AES67/DANTE™ COMPATIBLE

SAMPLE RATES:  
44.1 KHZ, 48KHZ, 88.2KHZ, 96KHZ

*New*

# HEADPHONE AMPLIFIER AES67 MKII

AVAILABLE IN TABLE MOUNT

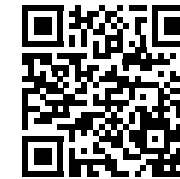
SAME PRODUCT BUT NOW WITH AN ANALOG BALANCED OUTPUT FOR ADDING EXTRA ANALOG HEADPHONE AMPS FROM AEROAUDIO (HPAMP FM/TM AND/OR HPAMP DSP FM/TM.)



The AeroAudio HP AMP is a superb well designed studio quality headphone amplifier made for Jocks and producers that hides away and just does the job you need it for.

The +20 year field proven design ensures your ears are safe from annoying cracking audio on touching the volume knob. With a double output for both 3.5 and 6.3mm jack's makes the annoying 'where did I put it' adapters obsolete, just simply connecting all types of studio headphones.

Connecting it has never been so easy. The audio link is based on the AES67 and Dante™ audio over IP standards. Just connect it to your AES67/Dante™ IP network and link it to the needed sources using the Ravenna™ AES controller or the Audinate™ Dante™ controller.



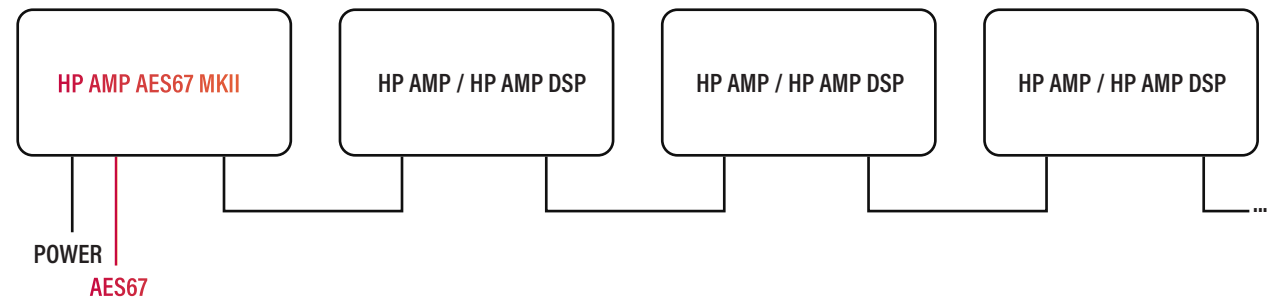
*manual*  
**Flushmount**  
The rock solid casing hides away in your desk.



*manual*  
**Tablemount**  
The rock solid miniature casing hides away under your desk with a special design so your knees are safe from painfully bumping it. A small bright shining LED let's you find the Amp instantly.

### Analog balanced output

for Adding extra analog headphone amps from AeroAudio. (HPAMP FM/TM and/or HPAMP DSP FM/TM.)



# BLUETOOTH TRANSCIVER

 BLUETOOTH V4.2 CLASS 2

 STEREO OUT (TO THE STUDIO)

 MONO IN (TO THE CALLER)

 MANUAL OR GPIO CONTROL

 12V POWER INPUT



The AeroAudio BT is a bluetooth receiver and transmitter for connecting bluetooth devices to a broadcast studio. Not only can music be played from, for example, a mobile phone, but the phone can also be used as a telephone link and a conversation can be broadcasted directly through WhatsApp, Skype, telephony or other communication apps. The caller receives the return signal from the studio.

#### Status LED indicator

The LED will light up when the 12VDC power supply is present and varies in state of standby or connected.

#### 12VDC POWER INPUT

Ratings: 12VDC (9~18 volt) at 250mA. The polarity is not important

Power supply is included, options: 115V/USA - 230V/AUS - 230V/EUR - 230V/UK

#### AUDIO OUT (TO STUDIO)

Stereo left and right output; connect to your equipment with standard XLR cable (XLR 3pin)

- PIN1: Ground (Shield)
- PIN2: Positive (Red)
- PIN3: Negative (Blue)

#### AUDIO IN (TO CALLER)

Mono input; connect to the studio to the BT1 with standard XLR cable (XLR 3pin)

- PIN1: Ground (Shield)
- PIN2: Positive (Red)

#### GPIO CONTROL

GPI control to remotely activate or deactivate the transmission link.

GPO output to remotely indicate the transceiver's status

*manual*



# MPX2LCD

HTML5 web interface

2 MPX inputs

1 MPX output

SNMP

Mail server

Attack time, release time, treshold, left/right, detector (audio level, 19kHz)

Tally control

LCD display

Jack 6,3mm headphone output



MPX 2 LCD



The detector is designed to monitor 2 MPX signals and switch to the output. The input that is active, so connected to the output, is also displayed on the display and the audio signal is audible on the headset.

If the "main" input (MPX input 1) is lost, MPX input 2 will be switched to the output. This is visible on the display of the detector by the text BACKUP: MPX2. This text also blinks so it is clear that the main input has failed.

Switching the mpx signal (from one of the inputs to the output) is done by a relay so that the signal is not affected.

The detector also checks the 19Khz signal. Its status can be seen in the web interface. The detector has a network interface for displaying status, configuring configuration and sending alerts. Status notifications occur by means of Emails. The settings for this can be done in the web interface. This interface can be operated via a web browser (Firefox, Google Chrome, etc.).

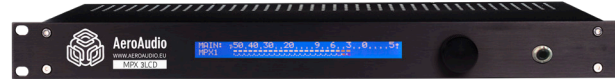


*manual*

# MPX3LCD

- HTML5 web interface
- 3 MPX inputs
- 1 MPX output
- SNMP
- Mail server
- Attack time, release time, treshold, left/right, detector (audio level, 19kHz)
- Tally control
- LCD display
- Jack 6,3mm headphone output

MPX 3 LCD



The detector is designed to monitor up to 3 MPX signals and switch one of them to the output. The input that is active, i.e. the input that is switched to the output, is also shown at the display, and its audio signal can be listened to at the headphone jack. On an failure of the main input, one of the other two sources will be switched to the output. The display of the device will indicate this with the text BACKUP: MPX1, MPX 2 or MPX3. This status is also shown in the HTML interface. The MPX signals are switched through relays, so that there is zero influence on the signal.

On a detected silence, the priority of inputs that is switched to, is on the order of the lowest input number. For example, if inputs 2 and 3 are both present, then input 2 will always be connected to the output. With inputs 1 and 2, it is always input 1. The status reports of this are done by means of emails and SNMP. All the settings can be made in the 4 HTML pages. These can be configured with a web browser (Firefox, Google chrome, etc.) The detector also checks the 19 kHz signal. This is also shown in the HTML interface. You can choose whether the detection takes place by audio silence or the absence of the 19 kHz signal. Preferable, use input 1 as the Main input. The reason is that on a power failure, the relays switches input 1 to the output.

*manual*



At the back you can find the connections for the MPX inputs and the network connection. There is also a 9 pin D connector with the text "Tally"  
A relay contact is connected to this, which indicates the status of the detector.  
Pin 1 = NC Pin 2 = NO Pin 6 = common



*manual*



## THE NEW STANDARD FOR MONITORING AND SURVEILLANCE OF PA SPEAKER NETWORKS



### MEASUREMENTS

- Automatic monitoring of amplifiers and speakers.
- High and low impedance measurements of loudspeaker system.
- Automatic calibration.
- Automatic noise measurements.



### I/O

- 4 channels.
- 4 analog audio inputs.
- 4 analog audio outputs.
- 4 amplifier inputs.
- 4 amplifier speaker outputs.
- Network connection.



### TIME SCHEDULING

- Automatic time scheduled level adjustments.



### CONTROL

- Frontpanel control.
- Remote control.
- HTML5 webpage.
- SNMP alerts and messages.
- NTP server.
- Different user logins and rights.

## Do you know if your speaker system really works?

The Station Audio Control (SAC) is specifically developed for monitoring and surveillance of PA speaker networks, for example on railway station facilities. It enables measuring of audio levels from both the line inputs and amplifier outputs of amplifiers. Deviations from preset values are signaled and reported, e.g. to a server via an SNMP trap.



The Station Audio Control (SAC) is specifically developed for monitoring and surveillance of PA speaker networks, for example on railway station facilities. It enables measuring of audio levels from both the line inputs and amplifier outputs of (100 Volt) amplifiers. Deviations from preset values are signaled and reported, e.g. to a server via an SNMP trap.

Additionally, impedances of speaker networks are checked as to whether these are still within the permitted margin. A maximum of 4 speaker networks, plus associated amplifier inputs & outputs, can be connected. The impedance measurement ranges from  $2\Omega$  to  $5000\Omega$ .

During the installation of the system, a calibration step of the speaker network should be performed. In this step, the impedance of the network is measured and stored as a reference value. At every subsequent measurement of the network, the result is compared with this reference value. A deviation of more than 10% is signaled.

An automatic measurement of the impedance of the network can be done, once a day and at a preset time; preferably at night, as this is when there is the least amount of traffic on the tracks and platforms. Noise affects the outcome of the measurement. The measurement of the speaker network is not audible.

During the measurement, the speaker network is probed 4 times at intervals of X seconds. The measurement itself takes 1 second. The interval time X is adjustable from 5 to 60 seconds. If two or more of the 4 values deviate 10% or more from the stored (reference) value, the measurement is repeated. The interval time between repeats is 30 seconds.

The measurement is repeated a maximum of 3 times. If the deviation still exceeds the limit of 10%, a notification is sent and the measurement is stopped.

If the value is far too high (open connection) or far too low (short circuit), the message "TOO HIGH" or "TOO LOW" will appear on the display on completion of the measurement. The web page will show this status with the values "high" or "low".

A second check done by the device is whether the amplifier is still functioning properly. This proceeds in the following way: The paging signal is received at line level on an XLR connector. It passes and leaves the device via a loop-through the circuit. This enables the device to detect whether audio is "in-coming". We follow the same procedure to check the output of the amplifier. It is verified that during a paging message, audio is present on the output of the amplifier. If not, a notification is sent. Similarly, if the output level of the amplifier deviates from the calibrated value, a message will appear.

In order to log all notifications at the correct time, the internal clock of the SAC must be synchronized on start-up, preferably to the network time server. Thus, all devices will run in sync. The internal clock of the SAC continues to run for several weeks, if the device is non powered.

The status and audio levels of the four sources can be read on the device display. It also offers a menu, for adjusting settings.

Furthermore, you can log into the device with a web browser to configure the system via five web pages.

The core software of the SAC is Linux. A drawback of this OS is that in the event of a power loss, the latest status messages and notifications are not yet written into the logs. To prevent this, a battery has been placed in the SAC that ensures that in the event of a power failure, the OS is properly shut down and (cached) data is saved. The battery is of Lithium-Metal type and it has an expected lifespan of 8 to 10 years. If the battery voltage drops below a limit, this is signaled via SNMP and in the log.

Since the SAC is solid-state (no fan), it is virtually maintenance free.



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