



# LEADING THE NEXT GENERATION

## OF LUXURY HOME CINEMA PROCESSOR

SL 22.0  
TpBL 22.4  
TpSR 23.0

RESPONSE SUBWOOFER MANAGEMENT ADJUSTABLE RICHNESS  
7 CHANNELS 3D AUDIO 118 DIG & ANA INPUTS+80 OUTP  
ROOM/SPEAKERS OPTIMIZATION  
2 CH. 2D/3D REMAPPING  
CODECS DOLBY ATMOS, AURO-3D RE  
PORT ACOUSTIC MEASUREMENT ETHERNET & WIFI VNC REMOTE  
UPNP/DLNA RENDERER WAV, AIFF, OGG, FLAC UP TO 24 BITS / 192 KHZ AUTOMATION TELNET/RS232

ELEVATE YOUR SOUND  
**ALTITUDE 32**



Trinnoo leverages its unique technologies acclaimed across the entire film industry from studios to commercial theaters as well as its leading position in 3D sound since 2001, to propose the most advanced, innovative powerful and scalable 3D AV Preamp/Optimizer ever manufactured.

A new reference is born.



We leverage our unique technologies acclaimed across the entire film industry, from studios to commercial theaters, as well as our leading position in 3D sound research since 2001, to propose the most advanced, innovative, powerful and scalable 3D AV Preamplifier ever manufactured.



*Arnaud Laborie,*  
*CEO*

## SETTING NEW STANDARDS

Powered by **unrivalled processing** capabilities and **exclusive technologies**, the Altitude<sup>32</sup> opens the way to a whole new generation of luxury home cinema processors, designed for ultimate performance and sustainability within the fast moving home theater entertainment industry, now driven by 3D Audio, 4K Ultra High Definition and HDMI 2.0.

The Altitude<sup>32</sup> is a **scalable easy-to-upgrade** solution. The entry model supports the latest HD Audio and Video formats while the highest model with 3D audio decoding option decodes and delivers **up to 32 discrete channels** of immersive audio content at an unprecedented level of quality, for a whole new listening experience, leaving competition far behind.

From the revolutionary hardware platform to the software environment, everything has been specified with no compromise to provide the **most future-proof** solution and ensure a unique user experience that Trinnov commits to enhance over years.

## THE NEW PARADIGM OF 3D SOUND

Trinnov stands for **3D Innovation**.

As early as 2001, Trinnov achieved the world first high-spatial-resolution 3D sound chain from 3D recording to 3D reproduction, over 24 speakers. Since then, Trinnov continuously contributes to 3D audio at the highest scientific level, with a portfolio of over 50 patents.

Trinnov provides world class universities and research labs with high channel count Optimizer for 3D Research, including NHK's 22.2 channel. This is why Trinnov, as an undisputed pioneer and leader of the field, fully understands the new paradigm of 3D sound, its amazing complexity and provides the required technologies to ensure truly high performance 3D reproduction.

At least for the next decade, the Altitude<sup>32</sup> will be the new reference for 3D sound.

# ALTITUDE 32



AURO 3D AUDIO

## NEXT GENERATION 32 CHANNEL AV PREAMP ELEVATE YOUR SOUND

DOLBY. ATMOS

We shaped the Altitude<sup>32</sup> to ensure an undisputed leadership in 3D sound, leaving nothing to chance: high channel count, huge processing capabilities to meet the highest technical requirements, and exclusive patented technologies to unleash the full potential of immersive sound, regardless of formats and speaker layouts, turning the Altitude<sup>32</sup> into a real 3D sound virtuoso and a reference for many years to come.

ULTIMATE 3D AUDIO EXPERIENCE

# THE NEW REFERENCE FOR 3D SOUND

The standard version of the Altitude<sup>32</sup> natively decodes Dolby Digital Plus®, Dolby TrueHD®, DTS Digital Surround® and DTS-HD Master Audio®. With the 3D Audio optional package, you can experience a new world of immersive sound with **Dolby Atmos®** and **Auro-3D®**. For legacy content, the Altitude<sup>32</sup> also includes both Dolby Surround Processing and Auro-Matic®.

Thanks to **Trinnov patented 3D spatial remapping technology**, the Altitude<sup>32</sup> is the only processor to provide **universal and spatial-accurate 3D sound playback**. This technology ensures an unmatched spatial resolution for the most incredible immersive experience and represents the only sustainable solution to the inherent incompatibility issue of current and future 3D sound formats.

UNRIVALLED PROCESSING CAPABILITIES

# REVOLUTIONARY HARDWARE PLATFORM

At the heart of this new generation of processor is a new approach to Digital Signal Processing, based on **revolutionary hardware architecture**, highly scalable and easy to upgrade.

Instead of traditionally using multiple DSPs implemented in a complex and rigid architecture, Trinnov Audio has developed a multi-purpose processing platform, based on a single multi-core Intel processor to provide **unrivalled processing capabilities**.

Used everyday in demanding professional environments, this architecture meets the highest requirements in terms of reliability. Despite its extreme sophistication, the Altitude<sup>32</sup> is easy to operate thanks to a unique user-friendly and **self-explaining** web-based user interface.



PASSION FOR AUDIO QUALITY WITHOUT COMPROMISE

# TRINNOV AUDIO: THE ROOM OPTIMIZATION EXPERT

TRINNOV OPTIMIZER:  
THE CHOICE OF PROFESSIONALS

For almost 10 years, Trinnov has provided prestigious customers with room correction solutions within the professional audio industry. In fact, the Optimizer technology is used across the entire film production chain, from mixing facilities to commercial theaters. The Optimizer technology is today's most advanced, comprehensive and flexible room correction system available on the market, fully integrated in the Altitude<sup>32</sup>, providing acoustic analysis, best-in-class room optimization, intelligent active crossovers and extensive bass management possibilities to ensure a true-to-source sound reproduction.

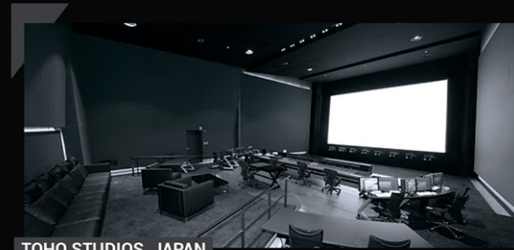


FUTURE IN MIND

## ONGOING INNOVATION

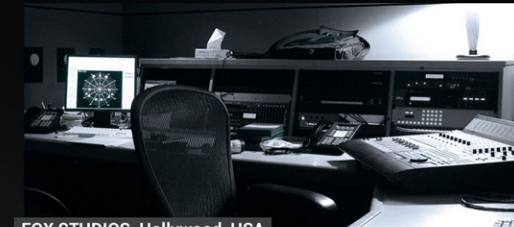
Since 2003, Trinnov audio is committed to innovation as a mean to provide high quality sound and future-proof technologies. Both the hardware platform and software environment of the Altitude<sup>32</sup> have been designed to open endless perspectives via software implementations and deliver a user experience to be enhanced over years through ongoing innovation.

They trust us:



TOHO STUDIOS, JAPAN

*Film mixing facilities of the original Godzilla movie.*



FOX STUDIOS, Hollywood, USA

*Film mastering for HDTV.*



UGC NORMANDY, Champs-Élysées, Paris, FR

*800 seats premiere screening room.*

## MAIN FEATURES

32 Channel Digital Audio Processor / Universal Spatial-Accurate 3D Audio playback / Best-in-Class Room Optimization fully integrated / Superior multi-subwoofer management & 4-ways active Xovers calibration / 118 Digital and Analog Inputs and 80 audio Outputs / 8x HDMI Inputs, 2x HDMI Outputs / User-friendly, self-explaining user interface / Builtin WiFi & UPnP/DLNA Compliant Digital Media Renderer / Wide choice of Remote Options.



3,5 U Rack: H: 165 mm / W: 430 mm / D: 405 mm  
Weight: 14 kg Power consumption: 90 W max.

BLACK ALUMINIUM LIGHT GREY ALUMINIUM

DESIGNED, MANUFACTURED AND ASSEMBLED IN FRANCE

### IN 25 SOURCES PREAMP

- DIGITAL**
- 8x 3D Ready HDMI 1.4b compliant
  - 1x 16 AES channels on DB25
  - 4x S/PDIF coaxial on RCA
  - 4x S/PDIF optical on TosLink
  - 2x AES/EBU on XLR

- ANALOG**
- 3x RCA stereo
  - 2x XLR stereo
  - 1x RCA 7.1
  - 1x 3D Microphone Input

### OUT UP TO 32 SIMULTANEOUS OUTPUTS

- DIGITAL**
- 2x HDMI outputs
  - 16x AES channels on DB25
  - 1x AES/EBU on XLR
  - 1x S/PDIF coaxial + 1x S/PDIF optical
  - 1 AML extension link

- ANALOG**
- 32x Balanced on 4x DB25
  - 16x Balanced on 16x XLR
  - 1x RCA stereo

## AUDIO FORMATS



- HDMI 1.4b compliant digital audio with 3D video pass-through (HDMI 2.0 upgrade supported);
- HD Audio Codecs: Dolby TrueHD®, DTS-HD Master Audio®;
- 3D Audio Codecs (optional): Dolby Atmos®, Auro-3D® and more to come...;
- LPCM Audio: 16-channels AES input compatible with Digital Cinema Servers;
- UPnP/DLNA renderer: WAV, AIFF, OGG, FLAC up to 24 bits / 192 kHz.

## AUDIO PROCESSING

- **Automatic processing:**
  - Multi-point acoustic measurement (Trinnov 3D measurement microphone);
  - Time/Frequency acoustic analysis based on impulse response measurement;
  - Loudspeaker/Room optimization;
  - Target Curves.
- **Manual processing:**
  - Several layers of 31 bands Graphic EQ, FIR EQ, gains, polarity and delays available for every channel;
  - Total delay given in meters/milliseconds/frames for the listening point and adjustable global delay for accurate Lip Sync;
  - Front / Surround / Top balance.
- **Comprehensive Processing latency control.**



3D tetrahedric measurement probe

## EXCLUSIVE TECHNOLOGIES

- **Trinnov patented 2D/3D spatial remapping;**
- **Trinnov Loudspeaker/Room Optimization;**
- **Trinnov high-performance AD/DA converters**, used daily by the most demanding mastering studios;
- **Next Generation Hardware platform:**
  - Revolutionary architecture, scalable processing platform;
  - 64 bits Floating point & 24 bits / 192 kHz native processing;
  - Future-proof software-oriented upgrades provided over internet, no need for DSP upgrade;
  - Robust design, inspired from our Professional Audio product lines.

## LINEUP

ALTITUDE 32 8-8  
8 AES Inputs / 8 Analog Outputs

ALTITUDE 32 8-16  
8 AES Inputs / 16 Analog Outputs

ALTITUDE 32 16-24  
16 AES Inputs / 24 Analog Outputs

ALTITUDE 32 16-32  
16 AES Inputs / 32 Analog Outputs

## REMOTE MANAGEMENT

- VNC Remote Control through the network from any smartphone, tablet or laptop;
- Web-based responsive interface (Q1 2015);
- Automation via Telnet and RS232 protocols;
- Crestron® and Savant® modules available;
- Built-in Gigabit Ethernet and WiFi;
- Remote control included.

## POWER

- Dedicated linear power supply with toroidal transformer on the Analog audio circuit;
- Dedicated PSU / switch-mode power supply on the digital audio circuit.

## SUBWOOFER MANAGEMENT

- Adjustable High Pass / Low pass editable by group or for individual satellite/sub;
- Support for 0 to 32 subwoofers;
- Automatic level and delay alignment.



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