Multiple Audio Processor

FM / AM - HD Radio - Internet Streaming - Recording Studios

AudiMax 362HD

The best option for lovers of high-end analog sound

Includes Digital Stereo Coder and Option for digital In/Outs

Low cost with excellent soft and surround sound.

Greater scope for FM radio.

The best option for lovers of high-end analog sound

Two separate outputs for MPX (main and emergency transmitter) *and two outputs for simultaneous webcasting streaming or recording. Three balanced inputs with XLR, RCA and RJ45 connectors to operate with any console. Option for digital inputs/outputs for direct connection to PC using USB port.*

The excellent quality of the professional electronic components *and their five-year warranty gives the 362HD an excellent performance at low-price. This unit, sold in 60 countries, is probably the most popular at the world market.*

The 362HD includes *seven audio processors and one digital stereo coder with 16x oversampling. It works in 3 bands and has 7 controls to customize the sound (then your radio will sound different from the others).*

It can be used both FM and AM radios. *Is the only audio processor able to work too in HD Radio, TV channels, Internet streaming and recording studios, because it can be set for different applicationsas by DIP Switchs.*

When AudiMax 362HD works *in one FM radio, this radio will improve between 30 to 50%. The coverage area. It also achieves an impressive audio quality that will distinguish your radio from competition. Its sound is soft and enveloping with the classic features of analog high-tech processes.*

The 362HD uses our exclusive VCA technology, *being very easy to adjust. In fact, with all the controls at center position, your radio station will sound perfect. No need for a technician to adjust it. Does not even have the critical "input level control", because it uses an advanced AGC system that adapts it to the output of any audio console.*

The 362HD includes a digital stereo coder *with 16X oversampling, a technology invented by Solidyne for ensuring ultra-low distortion (below the threshold of audibility of the human ear) and high channel separation, That do not need any calibration during its lifetime. The two MPX outputs are differential type canceling residual hum that often affects other brands of processors.*

Increase the reach of FM stereo radios

The coverage area of a radio using the 362HD is increased from 30% to 50%. *This effect is well known to all users of our processors. For further technical and scientific information, visit our website to understand the theory about why we can increase the coverage area of the FM stereo station. Please see our slides presentation: "Tutorial about audio processors".*

Greater scope in FM radios

WEBcasting:

Worldwide coverage for your Radio station in audio and video

Currently it is possible by the invention of Audicom AVRA, *convert your radio station in an low cost TV channel. But the audio must be processed with professional quality. But you can NOT use audio processors using PC software because they have much delay. The AudiMax 362HD does not have any delay and is the ideal solution.*

362HD is also widely used *for processing the signal sent from console to the announcers headphones. It avoids the on-air signal delay that modern digital radios have*

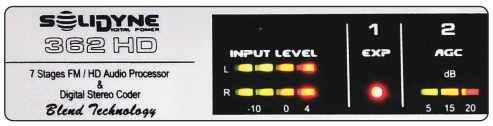
SOLIDYNE 362HD:

The best processing technology for FM radio at a price you can afford.

Includes Digital Stereo Coder and Option for digital In/Outs

Seven Processors within the 362HD

The input level is self-adjusted for any console and is resistant to audio level variations due to different announcers or musical themes.



Processor 1: *An audio expander guarantees the elimination of background noise at times when there is silence or pauses in speech.*

Processor 2: *An **AGC** (Automatic Gain Control) system ensures enter into the multiband system with the same level of audio always avoiding variations in the level of transmission of the radio.*

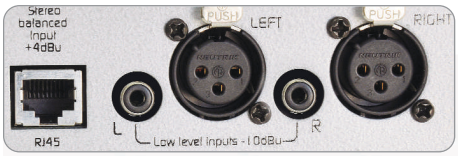
Processor 3: *A phase rotation system uses **Kahnn-Bonello** peak symmetry technology to cancel the asymmetry of the human voice that reduces the radio range and reinforcing the sensation of presence of the voice.*

Processor 4: ***Dynamic Equalizer** is a 3-band audio control that lets you customize the sound of your radio to sound better than your competition. Unlike conventional equalizers this equalizer emphasizes its action even at high modulation levels.*

Processor 5: *The **Band Energy** system increases the density peaks in the 3 bands obtaining signals of very high loudness. It is adjusted depending on whether you want an aggressive or soft sound.*

Processor 6: ***Multiband Compressor**; It is the basis of the processing system. Comprises 3 independent audio compressors operating in 3-bands, Bass, Middle and Treble frequencies. The **Band Energy** controls let you modify the sound of each band. The high band has an instantaneous peak limiter with intermodulation canceller for total cleaning of the sound. This avoids the harsh sound that usually you hear in other processor brands.*

Processor 7: *The sum of the three channels is sent to the digital stereo coder. The **MPX** fast limiter can work from **0 to 6 dB** using the **SuperModulación** technology that allows improving the coverage range of the FM station without overmodulation.*

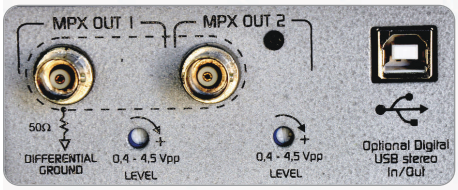


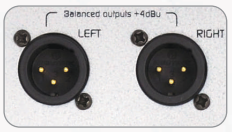
The 362HD has three inputs:

*- One balanced **XLR**;*

*- One **RJ45** plug that allows using a single Cat 5 shielded cable to any Solidyne console. It uses the new **StudioHUB** compatible standard. See details on our website.*

*- One input is **RCA** type for connecting low level unbalanced semi-professional consoles.*





***The 362HD has balanced XLR outputs** to use Internet streaming simultaneously with **MPX** FM transmitters. This output can also be used for recording because it has flat frequency response.*

*It also has two independent **MPX** outputs for both FM transmitters (Air and Emergency) each has its own individual output level to suit any brand of transmitter.*

*The **Solidyne** processors are the only one at the international market that offer MPX differential outputs to cancel hum and noise from ground loops between equipment.*

***The model 362/USB** also has digital inputs and outputs for direct connection to a PC without using audio cards that deteriorate the sound quality.*

SERVICES

***Please listen to audio demos recorded** from Air into a real FM transmission. You can see too videos recorded in Europe at: www.solidynePRO.com*

Technical Specifications

Includes Digital Stereo Coder and Option for digital In/Outs

362HD AudiMax Processor

Measured from balanced XLR inputs to XLR outputs.

Analog Inputs:
1- XLR3 conector, level self-adjusted 0 dBu to + 15 dBu 600 ohms balanced; Z > 10 Kohms
2- RCA unbal, level self adjusted -15 to 0 dBu, Z=10 Kohms
3- RJ45 stereo balanced (compatible with StudioHUB, Axia, etc) 0 dBu to + 15 dBu, 600 ohms balanced. Z > 10 Kohms
4- Optional digital stereo USB input for PC direct connection

Analog Output
1- Analog Balanced, + 4 dBu; Z= 600 / 10 Kohms, with de-emphasis (flat response)
2- Optional USB digital stereo output (flat response) for direct connection to PC

MPX Output
Two MPX outputs with individual level control with preset at rear side
600/10 Kohms, level from 0,4 to 4,5 Vpp
Differential output, BNC connector, floating ground 50 ohms
Allows 45 dB canceling buzz & noise due to ground loops

Frequency Response 20 - 16.000 Hz +/- 0,5 dB measured below compression & limiter threshold

Harmonic Distortion Below 0,02 % @ 30-15.000Hz

Noise Below - 90 dBA ref 100 % modulation
Stereo Separation > 75 dBA

Subsonic Filter Chebyshev 2nd order, 15 Hz

Asymmetry Cancelling 5 : 1 cancelling effect, using Khann-Bonello system

Expander 10:1 slope, 0,1 msec attack time, 200 msec release

AGC (wideband) VCA controlled, 30 dB range, 3 sec attack/release

Multiband Compressors 3 bands, 18 dB/octave.
Linear Phase crossover
Compressors: 30 dB range, 5:1 slope,VCA controlled
Automatic attack time. Release time user controlled

IM Cancelled Clipper IM clipper cancellation > 30 dB below 250 hz

Dynamic EQ 0 - 12 dB dynamic boost at Low, Mid and High Frecuency Front panel user controlled

Processing 7 stages of processing devices

Power 115 V / 230 V (rear switch selected) 50/60 Hz, 20 W

Dimensions 19" rack mount. Module one (44,4 mm).

Weight 3 Kg Net; (4 Kg for courier freight)

Digital Stereo Coder 16x Oversampling

Specs are measured from internal Stereo coder jumper to MPX out with Belar Digital DSD-1A.

Audio input 2 Vpp for 100 % MPX output (4 Vpp)

MPX output
Two MPX outputs with individual level control with preset at rear side
Differential output, BNC connector, floating ground 50 ohms.
Allows 45 dB canceling buzz & noise due to ground loops
Level of each output adjustable from 0,4 to 4,5 Vpp
600/10 kohms

Frequency Response 20-15.000 +/- 0,2 dB, plus 15 Khz/5 order eliptic, Active FDNR, L.P. filter.

Attenuation at 19 Khz > 50 dB

Harmonic Distortion From 30-15.000 Hz, below 0,005 %. Measured using Belar Digital Stereo decoder DSD-1A and Tektronix 5L4 N Spectrum Analyzer

Signal to Noise Ratio Better than 90 dBA with reference to 100% modulation

Stereo Separation: > 65 dB at 1 Khz

38 kHz suppression: below -70 dB
57, 76 & 95 kHz suppression: below -75 dB

Pilot tone stability +/- 0,002 % (+/- 0,5 Hz)