

FM Audio Processor Model
AudiMax 362



*The best choice for
lovers of **Hi-End** analog sound.*

A new
landmark in
high quality
FM radio

**Obtain an impressive audio quality that
will distinguish your radio station.**

The best choice for lovers of Hi-End analog sound

362 have separated audio outputs for MPX and for WEBcasting.

Their excellent internal construction, with IC mounted on sockets and components identification, turns it an equipment of excellent professional quality, of very moderate price.

The **AudiMax 362** has 7 analog processing stages and the digital stereo coder. It works with **3 audio bands and has 7 front panel controls** for customize the sound (so that your radio sounds different from the others) Its very low price tag is appropriate for community **FM** radios and low power stations. Model **362** has simultaneous stereo balances outputs por audio streaming in Internet and coaxil MPX output for **FM** transmitter.



The **362-IT model** is an excellent processor for **WEBcasting** because analog inputs has internal equalization for optimal performance of streaming.

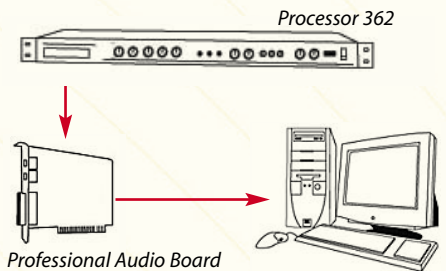
AudiMax is fully controlled by **VCA**, being very simple to adjust. In fact, with all the knobs to the center position, your radio will sound perfect on the air. You

don't need a technician to make the settings. Its main characteristic is the ease of use, because it does not require a specialized technician to start up and to adjust the unit; and neither it has the critical Input level control, since an automatic system adapts the input gain to the output level of any audio console and radio-operators (still the most distracted). The stereo coder stage uses digital synthesis with

16X oversampling, a

technology developed by **Solidyne** that guarantees ultra-low distortion and high channel separation, not requiring any readjustment during all its full life. **MPX** output is differential type, with floating ground for cancelling the residual humming.

WEBcasting: the radio at Internet. Obtain world-wide reach for your radio.



At the moment it is possible, thanks to the technologies of wideband Internet, to have one radio of high sound quality in this new media. We, agree with you that Internet never is going to replace to the conventional transmissions of **AM & FM** radio.

Nevertheless why not join to the club of radios that have world-wide reach? This will delight advertisers and will give you a competitive edge on other radios. It will give you the satisfaction, for example, to read to your audience mails that arrives from the entire world.

Solidyne 362 is the best technology for your radio at a cost that you can pay.

Increase the coverage of FM stereo radio

Operating in a **FM radio**, the **AudiMax 362** increases the reach of the FM transmission, improving the coverage area between **30 and 50%**, obtaining an impressive audio quality that will distinguish your radio station. You can learn more about how processing improves the FM reach at our website.



Seven Processors inside one rack



The input level is self-adjusted for any audio console and supports variations of the VU-meters level originated by DJs or radio operators.



Processing 1: An audio expander guarantees the suppression of background noise when silence of between pauses on the locution.

Processing 2: An AGC (Automatic Gain Control) system guarantee that the input level to the sensitive multiband system always be at the same level.



Processing 3: A phase rotation system uses the **Kahnn-Bonello** technology for cancellation of asymmetry peaks. This eliminate the asymetry of the human voice that reduce the reach of the radio and gives a sensation of weak sound.

Processing 4: Dynamic Equalizer is a dynamic audio EQ of 3 bands that allow reinforcing certain frequencies, generally the bass, to have a sound with a loud punch, ideal for the car-stereos. Unlike the conventional EQ, whose action is lost for high levels of modulation, this equalizer emphasizes its action, as grater is the modulation.

Processing 5: The **Band Energy** system increases the peak density for the 3 bands obtaining signals of very high loudness. One adjusts based on the kind of sound wishes by the radio: an aggressive or smoother sound.

Processing 6: Multiband Compressor is the core of the processing system, constituted by 3 independent audio compressors that works on 3 frequency bands: Low, Mid and High. The attack times are automatic and the user controls recovery times with the Band Energy



controls. One control allows modifying the input gain of the compressors. The band of high, being affected by the 75 uS pre-emphasis, has at the compressor output an ultra-fast peak limiter, followed by a Intermodulation cancelling filter to obtain a total cleaning sound in the high frequencies.

Processing 7: The sum of the signals is sent to the stereo coder. It has a safe clipper that acts at 0 to 6 dB and works over the MPX using a technology called **SUPERMODULATION**, increasing the audio signal between 2 and 3 dB, without over modulation.

Linking radio stations using Internet.

Make a satellite link without pay for the satellite.

Many radio stations obtain great advantages connecting themselves in network during a part of the day. It is possible to transmit from one national capital towards remote distant radio stations or to others countries. To have reporters of national reach or sport transmissions in direct.

A great amount of new ideas is today possible using systems on Wideband Internet that today is a economic option. Using a processing chain with a 362-IT and DSP48 soundcard you can obtain an excellent audio quality, far better that the satellite and almost without cost.

Contact us to make an integral project with suitable software and the best equipment.

Radio on Demand.

The option of transmitting by Internet is more and more used. But Internet is a different philosophy. Our listeners usually are very far, often abroad and their schedules are changed. A successful program at 7 PM in New York, probably wil not have audience in Europe at 12 midnight! Still for listeners of the same city, that arrives at home at the night and start up the PC for listening to the favorite program at noon, is advisable to use Radio **On Demand**.



 Listen our audio demos in web site section English/Audio Processors/DEMO.

Technical Specifications



362 AudiMax Processor

Measured from balanced XLR inputs to XLR outputs.

Analog Input XLR3 connector, level self-adjusted -6 dBu to + 15 dBu Z= 600 / 10 Kohms, balanced

Analog Output Balanced, + 4 dBu Z= 600 / 10 Kohms, with de-emphasis (flat response)

MPX Output 600/10 Kohms, factory set level to standard 4 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 B/octave, Linear Phase crossover. Compressors: 30 dB range, 5:1 slope, VCA controlled Automatic attack time. Release time user controlled by 3 x ENERGY controls

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

Dynamic EQ 0 - 12 dB dynamic boost at Low, Mid and High Frequency 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).

Digital Stereo Coder 16x Oversampling

Specs are measured from internal Stereo coder jumper to MPX out with Belar FM1.

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

MPX output Differential output, BNC connector, floating ground 50 ohms Allows 45 dB canceling buzz & noise due to ground loops 4 V pp max 600/10 kohms

Frequency Response 20-15.000 +/- 0,2 dB, plus 15 Khz/5 order elliptic, Active FDNR, L.P. filter. Attenuation at 19 Khz > 50 dB

Harmonic Distortion From 30-15.000 Hz, below 0,005 %. Measured Belar FM1 and Tektronix 5L4 N

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

Stereo Separation Typical > 65 dB at 1 Khz Better than 45 dB @ 20-12.000 Hz

38 Khz suppression Below - 70 dB

57, 76 & 95 Khz suppression Below - 75 dB

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