

acurus  
Accuracy from the U.S.



**Acurus has developed the world's first three channel amplifiers. They stemmed from understanding the power requirements of home theatre. The following will explain the thought process which created the unique 100X3.**

#### **Why a three channel amplifier ?**

We originated the three channel amplifier because it fulfilled several amplification needs.

1. With the proliferation of subwoofer/satellite speaker systems, a three channel amplifier provides one channel for each satellite speaker and one channel for the subwoofer.

2. For a high quality home theater system composed of separates, a three channel amplifier provides the flexibility which is expected of separates. By mating the Acurus 100X3 with a high quality stereo amplifier, you have five channels of real power. In this case, the three channels can be used across the front and the stereo amp for the rear or the 100X3 can be connected to the center and two rear speakers. If six channels of amplification are needed, two 100X3s solve the problem.

3. Better audio/video receivers have outputs for separate amplifiers. By using an Acurus three channel amplifier for the front speakers of a receiver based home theater system, a vast improvement in quality of sound will be achieved.

#### **Why not a five channel amplifier?**

In many cases people already own a stereo amplifier, so three channels are what is really required. In addition, attempting to fit five channels of real power into a single chassis would create a very large and difficult to handle amplifier. A manageable five channel amplifier only yields receiver type power, thereby eliminating the high power advantage of separate amplification.

#### **Can't amps be bridged for more power?**

Five channel amplifiers can usually be bridged (bridging combines two channels of amplification

together to form a single channel), but you don't really get more power. What you get is a higher wattage number for the bridged channel. In many cases the wattage specification of the two combined channels is greater than if you add the power of each channel together. Example: bridge two 50 watt channels together and get 120 watts instead of 100 watts. Where do the extra 20 watts come from, thin air? No, sorry to say there are no miracles in amplifiers.

When you take two channels, designed to be used separately, and bridge them, the amplifier has difficulty powering anything other than a constant 8 ohm load and generates more distortion. Since speakers aren't a purely 8 ohm resistive load (the wattage measurement is based on purely resistive loads), they vary in impedance, the bridged channels will actually provide less real power than when they weren't bridged. That is why Acurus amplifiers aren't bridgeable. Remember, in audio there are lies, damn lies and specifications.

#### **Don't specifications tell you what an amplifier sounds like?**

The same way that automotive specifications don't tell you what a car feels like. And ingredients don't tell you what food tastes like. Amplifier specifications don't tell you what an amplifier sounds like. You need to audition the amplifier to know the sound. That is why listening is the final test. Specifications do let you know if someone is attempting to artificially tailor the sound. If for instance the amplifier doesn't go to full power at 20,000 Hz. it is rolled off at the top end and achieves its smoothness at the expense of lost information. If there are phase shifts within the audible bandwidth, the stage presented can be artificially wide and instrument sizes distorted.

Acurus amplifiers are engineered to extremely rigorous standards. The smoothness, stage presentation, and bass reproduction are achieved by rigorous "sound" standards combined with the engineering. This is why we attempt not to

over emphasize specifications. For example, the 100X3's damping factor is greater than 500. However for bass control, a damping factor of 100 is all that is required. We don't believe in misleading you with superfluous specifications.

#### **Are there special requirements for a home theatre amplifier?**

Yes, to reproduce the original signal as accurately as possible. This is the standard to which all Acurus components are engineered. However, all the engineering in the world is easily wasted if the quality of parts is not up to the level of engineering. The Acurus standards for amplification are higher than any established for the reproduction of movies or music. While established standards allow the use of paper circuit boards, all Acurus amplifiers use glass epoxy boards.

While established standards allow the use of low cost integrated circuits for amplification, Acurus has only fully discrete components.

While established standards allow the use of carbon resistors, all Acurus amplifiers use the far more costly metal film resistors.

These examples are but a few of the ways that Acurus amplifiers are superior to accepted standards. Even our chassis is of a higher gauge metal than typical and is held together with machine screws that fit into steel nuts permanently attached to the metal. Other amplifiers are held together with sheet metal screws that gouge out a hole in the metal when they are inserted. It is these higher standards that have gained the U.S. manufactured Acurus international recognition. In Germany it is rated "Best Buy". In duty free Hong Kong, where all the worlds finest products compete, Acurus received "Component of the Year Award". And in Canada, Acurus components were judged to be the best in their category and received the Golden Ear Award.

# 100X3

## Three Channel Amplifier

### SPECIFICATIONS

#### Rated Power:

**100 watts per channel continuous,  
three channels driven into 8 Ohms  
20 Hz to 20,000 Hz at no more than  
0.06% THD**

**125 watts per channel continuous,  
three channels driven into 4 Ohms  
20 Hz to 20,000 Hz**

**Input Impedance:  
20k Ohms**

**Input Sensitivity:  
1.1 volts for full output**

**Signal to Noise Ratio:  
110dB A Weighted**

**Dimensions:  
17" wide  
5½" high  
12" deep**

**19" front panel optional**

**Weight: 35 lbs.**

### **MONDIAL DESIGNS LIMITED**

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