

THAT 1200, 1203, 1206**FEATURES**

- High CMRR: typ. 90 dB at 60 Hz
- Extremely high common-mode input impedance
 - Maintains balance under real-world conditions
- Transformer-like performance in an IC
- Excellent audio performance
 - Wide bandwidth: typ. > 22 MHz
 - High slew rate: typ. 12 V/ μ s
 - Low distortion: typ. 0.0005 % THD
 - Low noise: typ. -107 dBu
- Several gains: 0 dB, -3 dB, & -6 dB

APPLICATIONS

- Balanced Audio Line Receivers
- Instrumentation Amplifiers
- Differential Amplifiers
- Transformer Front-End Replacements
- ADC Front-Ends

Description

The THAT 1200-series InGenius balanced line receivers overcome a serious limitation of conventional balanced input stages: poor common mode rejection in real-world applications. While conventional input stages measure well in the lab and perform well on paper, they fail to live up to their CMRR specs when fed from even slightly unbalanced source impedances — a common situation in almost any pro sound environment. This is because conventional stages have low common-mode input impedance, which interacts with imbalances in source impedance to unbalance common-mode signals, making them indistinguishable from desired, balanced signals.

Developed by Bill Whitlock of Jensen Transformers, the patented InGenius input stage uses clever bootstrapping to raise its common-mode input impedance into the megohm range without the noise penalty from the obvious solution of using high-valued resistors. Like transformers, InGenius line receivers maintain their high CMRR over a wide range of source impedance imbalances — even when fed from single-ended sources. But unlike transformers, these wide bandwidth solid state devices offer dc-coupling, low distortion, and transparent sound in a small package at reasonable cost.