

## PCBAL-PCIX & BREAKOUT LEAD

PCI EXPRESS FORMAT LINE BALANCING BOARD FOR PC SOUND CARDS



The PCBAL-PCIX is a plug in board for personal computers designed as a quality stereo interface between balanced +4 dBu standard broadcast line level systems and unbalanced computer sound cards.

The majority of onboard sound cards supplied with computers are actually very good and are capable of giving high quality audio performance, warranting their use in professional broadcast systems. Unfortunately the proper audio grounding techniques are rarely; if ever, applied in the design and circuit board layout of computer audio systems. This low cost audio circuit design implementation makes it impossible to realize the full performance of sound cards without special interfacing. The main problems are hum loops and ground induced noise, for which the PCBAL-PCIX is designed to overcome.

The PCBAL-PCIX is designed to fit into a normal PCI Express slot and takes its + DC power supply and ground from the PC and uses an onboard DC to DC converter for the - 12V DC supply.

Also available is the PCIBAL Xpress 0.5 version, designed to fit half height PCI Express slots to suit low profile desktops. The 0.5 version has the DB25 connector and a second slot plate for the 3.5mm stereo jacks to exit the PC.

**The PCBAL-PCIX is a slave card therefore no drivers or software are required for installation.**

The stereo balanced line inputs and outputs are via a female DB25 connector with audio levels being standard +4 dBu (Balanced) and 300mV (Unbalanced). (Unbalanced 3.5mm leads also available on request.

The stereo unbalanced line inputs and outputs on the PCBAL-PCIX0.5 (½ size slot version) are via fly leads that exit the PC case on a second bracket.. Audio levels are standard 300 mV Hi-Fi levels compatible with normal sound cards.

### Technical Performance

Audio performance of the PCBAL-PCIX is considerably better than standard sound cards, however overall performance is entirely dependent on the quality of the onboard PC sound card.

Signal to Noise Ratio:	20 Hz to 20 KHz	All Muted	89.3 dB
		Stopped	60.7 dB
		Playing Silence	60.6 dB
Frequency Response:	±1 dB	Rec/Play	10 Hz to 21.3 KHz
Distortion:	@ 1 KHz		0.06% (THD)

Performance attained from a PCBAL with a SoundBlaster Live sound card, linear 48 KHz sampling.

The PCBAL-PCIX breakout cable supports both balanced and unbalanced connectivity.

