

# Embedded Subwoofer Conditioner

This document describes an embedded reference design for implementing low frequency filtering and compression techniques using Anadigm's AN221E04 FPAA device and a PIC16F876 microcontroller. Figure 1 shows the FPAA circuit and the parameters controlled by the PIC.

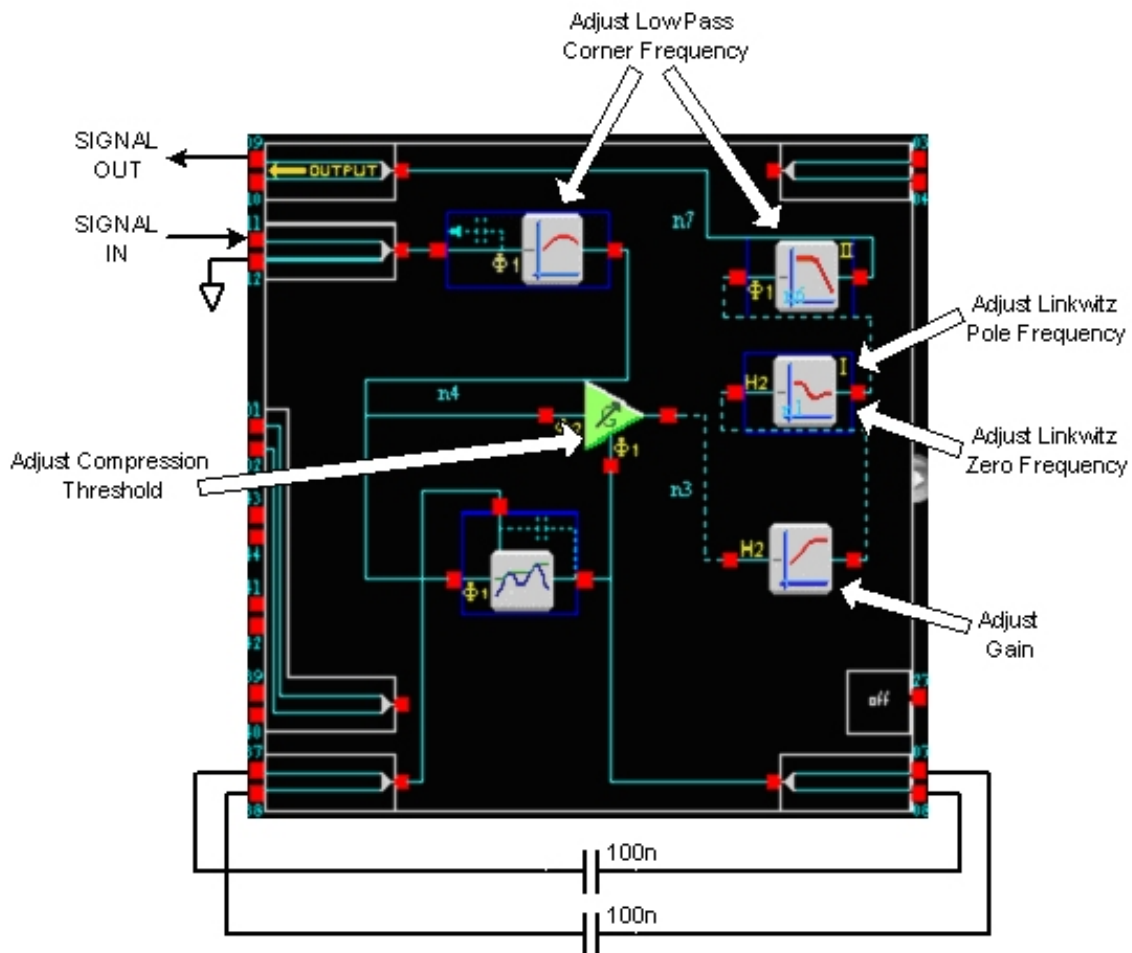


Figure 1: FPAA Circuit

All that is required is to connect the a.c. coupled signal in and signal out and power up the board – the demonstration is now ready to run. The pushbuttons shown in figure 2 can be used to adjust the settings of the 5 adjustable parameters. The range of values is given with the default value underlined. When a range limit is reached, the red LED flashes.

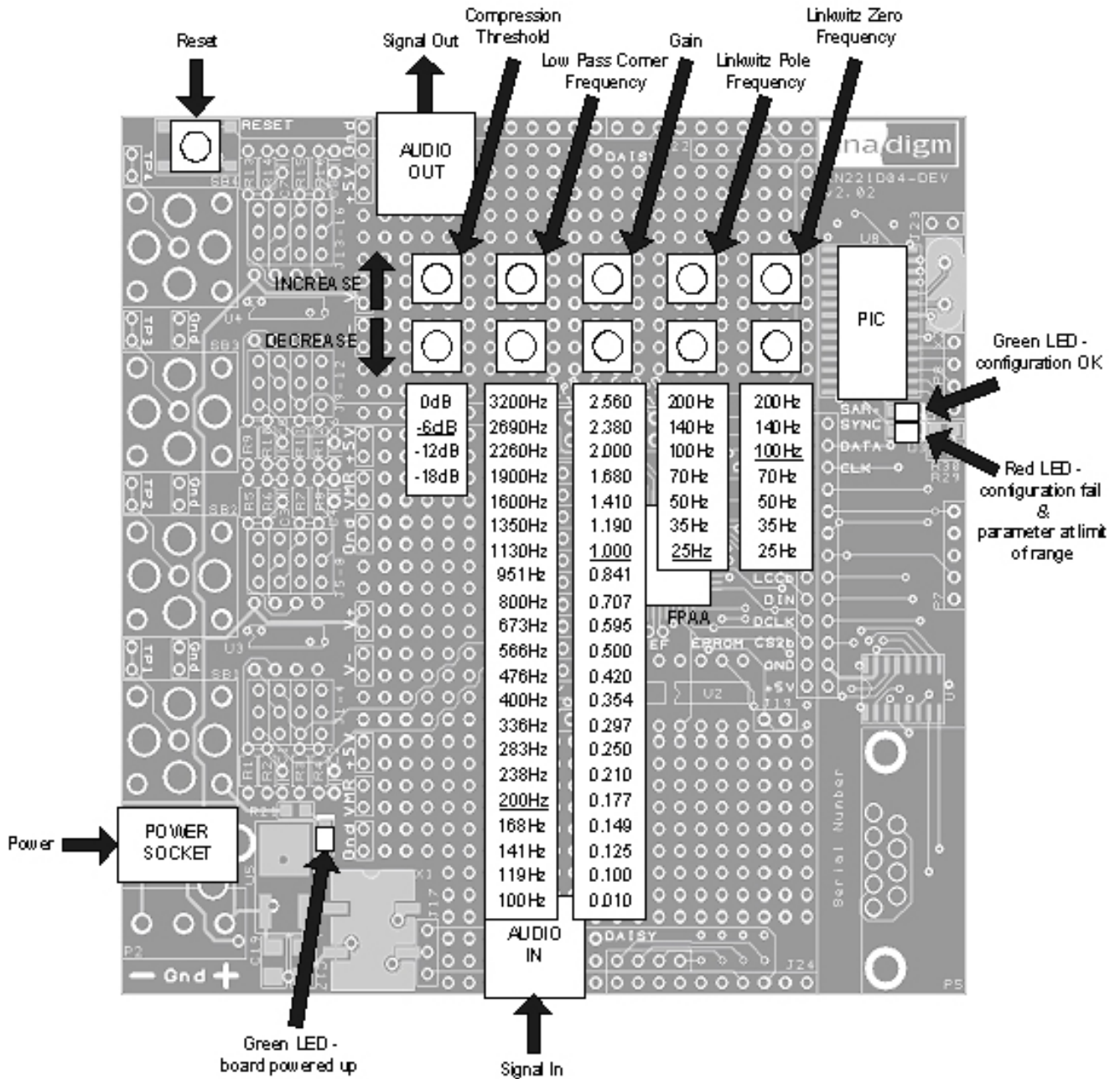


Figure 2: Board Overview

Figure 3 shows the basic connections between the FPAA, the PIC and the pushbuttons.

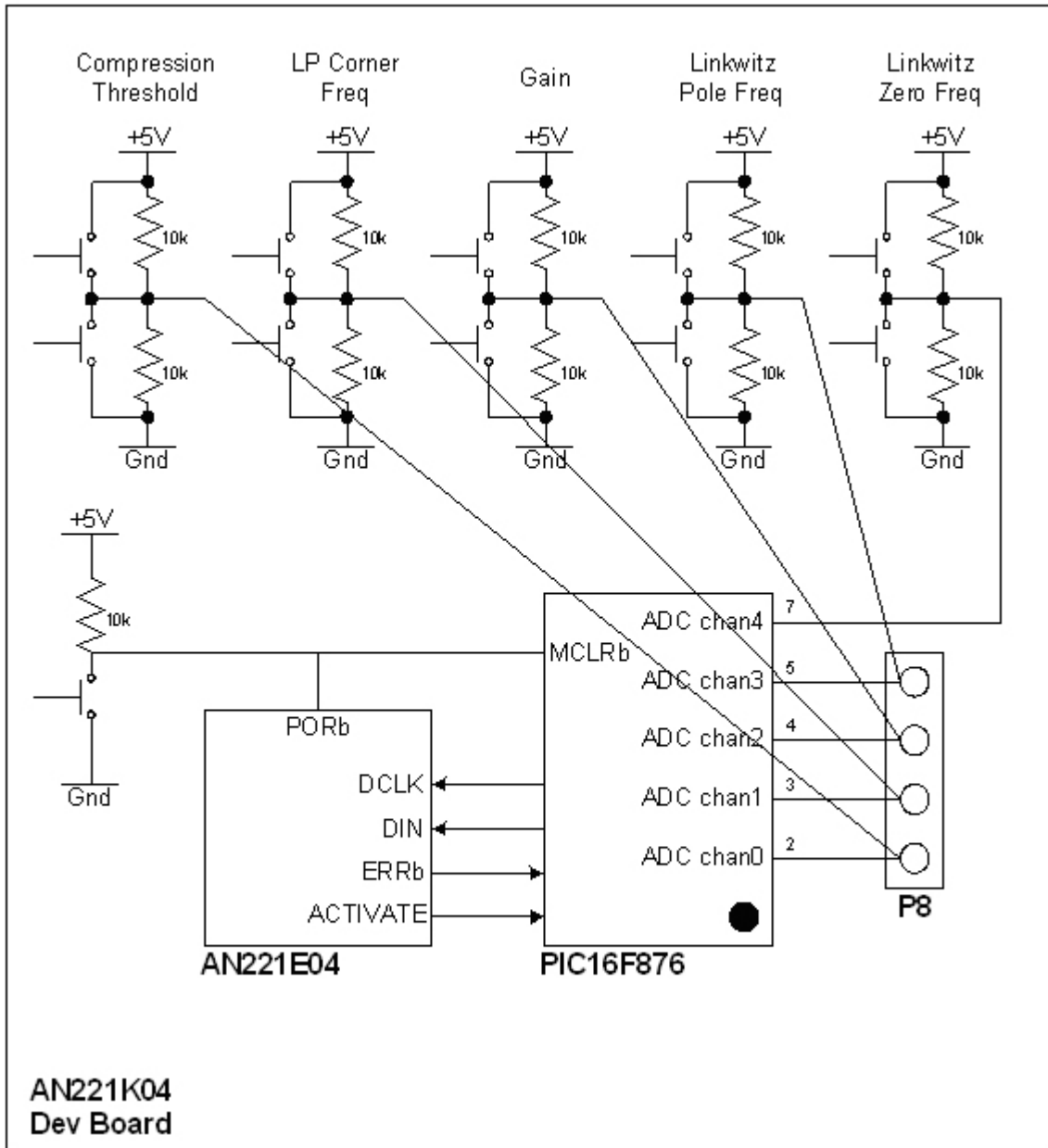


Figure 3: Board Connections