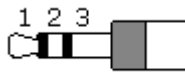


Computer microphones

Interfacing Microphones to Computer Sound Cards

Most **sound card microphone inputs** require a minimum signal level of at least 10 millivolts, but some older 8-bit cards need as much as 100 millivolts. The typical impedance of the PC soundcard microphone input is in order of 1 to 20 kohms (can vary from card to card). The microphone type which works best with computer sound cards is the **electret microphone**.

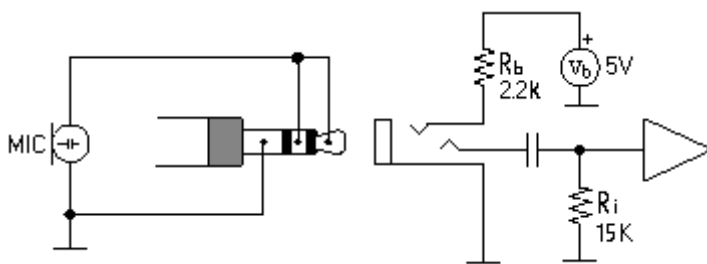
Sound Blaster soundcards (SB16, SB32, AWE32, AWE64 or Live) from Creative Labs have a 3.5mm (1/8 inch) [pink](#) stereo jack for the microphone input, with the following



pinout:

1. Signal input (tip)
2. +5V bias (ring)
3. Ground (sleeve)

Note: Most soundcards will wire the positive DC bias voltage to the ring, but a small number of non-standard soundcards can have the bias voltage wired to the tip. A few cards have a jumper which enables or disables the power to the microphone jack. If the jumper is put on, the bias voltage (+5V through a few kilohm resistor) is wired to the tip. Newer mainboards with stereo microphone support will provide the bias voltage for both the tip and ring.



The approximate schematic of a Sound Blaster microphone input circuitry shows that the +5V voltage on the connector is heavily current limited. The card's voltage might not be exactly 5V, but it is usually something between 3 and 5 volts when no microphone is connected.