SOUND LEVEL DETECTOR SYSTEM

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ABSTRACT

From the title, I can define my project as a system which connect a few stand alone circuit to discover the existence of sound that are detectable by human ears which is in a range of 20Hz to 4 kHz. This project is use to detect high frequency by the range of 20Hz to 4 kHz which I mention above in a place and we can monitor the place on a monitor or any viewing hardware.

Actually I want use an IC's signal strength indicator that is based on an internal logarithm converter. This enables me to obtain a linear decibel scale which mean 1 V for 1dB for example by a digital instrument but unfortunately the circuit couldn't work so as suggested by one of the lecturer I use microphone pre-amplifier to amplify the electronic signal as we know the microphone receive any signal it will pass the microphone with a voltage which is equivalent to the sound it receive.

From the main circuit, I will connect it to the dot mode voltmeter to select the output of the voltage which has been amplified, for example, if the amplified voltage is 3 volt, so the out of the meter will come out from the leg of the IC which represent 3 volt. After that I will use Opto-coupler to carefully select the output for the interfacing part because I use 12 volt for amplify the voltage but computer parallel port can support up to 5 volt only. So I use the opto-coupler to interface it to multiplexer.

Talking about multiplexer, I use multiplexer because I want it to switch electronically and automatically to search for a lot of output as you know a dot mode voltmeter has 10 output. Finally, I think there is a question in the reader. How many can this thing connect? As you know a parallel port has 5 input and 12 output and we need only 1 input for connecting 409.6 devices using 2^{12}. As for 5 input, 409.6 * 5 = 2048 device. Lastly, we know that a pc parallel port can connect up to 128 devices. If anything more than that I am afraid we need another computer.