

Q112 4 Channel Mixer

Feb 2015

The Q112 Mixer provides common mixing functions needed in all systems. A total of four inputs can be mixed. Three of the inputs have attenuators.

Controls and Connectors

Input Level Controls

Allows attenuation of input signals.

Input Connectors

Input signals to be mixed.

Output Connector

All four signals are mixed together and provided at this output.

Specifications

Panel Size: Single width 2.125"w x 8.75"h.

Signal Levels: 10V PP maximum

Power: +15V@30ma, -15V@30ma

Usage and Patch Tips

Basics

A mixer is basically an electrical adder. All the signal inputs are added together and presented at the output. Three of the inputs have attenuators and two do not. You can use a Q125 Signal Processor to attenuate signals before applying them to the unattenuated inputs. Since the signals are added, it's possible to create large signals that may clip which may or may not be desired.

Making New Waveforms

You can create new waveforms by mixing two or more from a single oscillator. The signals will be in phase and create a new stable, unbeating waveform. This can create interesting harmonics that can then be filtered.

Mixing Control Signals

The mixer has DC inputs and outputs which means it can mix slow moving control signals. This can be helpful when you need to mix an envelope generator output and an oscillator output for use by the filter or other modules that have limited input connectors.



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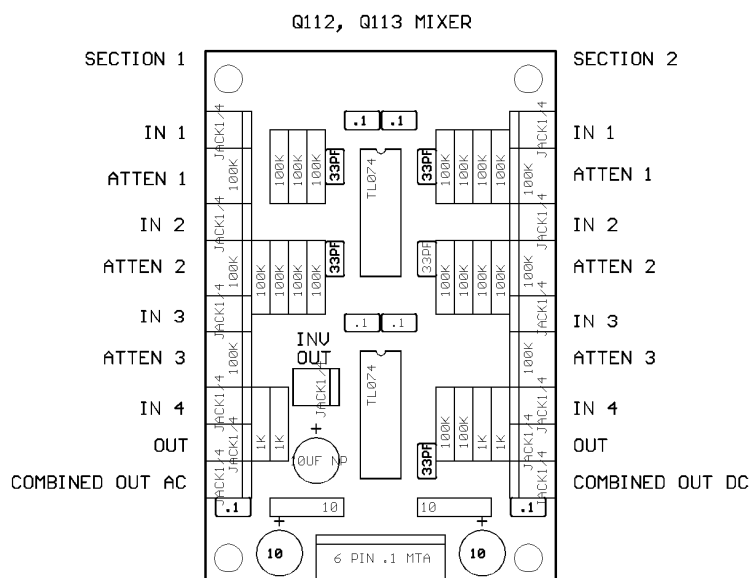
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Calibration and Testing

No calibration is required for this module.

1. Connect an oscilloscope to the output connector.
 2. Apply an 1Khz 10v PP waveform to each input and verify that the signal is present at the output.
- If the input has an attenuator, verify that it also operates correctly.

PCB Layout



Power Connector

6 pin .1" MTA type connector made by AMP. Available from Mouser Electronics or Digi-Key. Modules have a male PCB mount connector and cable harnesses have a female.

Part Numbers:

Female cable mount: #6404416

Male PCB mount: #6404566

Pinout:

1 = +15v

2 = key (pin removed)

3 = +5v

4 = gnd

5 = -15v

Not all voltages are used on all modules.