

Q127 Fixed Filter Bank

May 2002

The Q127 fixed filter bank contains 12 bandpass filters, a highpass filter and a lowpass filter used to attenuate frequencies throughout the audio range. Filter frequency values are fixed and spaced at 1/2 octave intervals. A bypass switch allows quick removal of filtering.

Controls and Connectors

Band Amplitude Controls

Adjust the amplitude for each band.

Bypass Switch

Selects filtered or unfiltered output.

Input Connector

Input signal.

Output Connector

The filtered output signal.

Specifications

Panel Size: Quad width 8.5"w x 8.75"h.

Bandpass Stage Slope: -12dB per octave.

Lowpass and Highpass Slope: -24dB per octave.

Input/Output Voltage Levels: 10V PP.

Power: +15V@120ma, -15V@120ma.

Calibration and Testing

No calibration is required for this module.

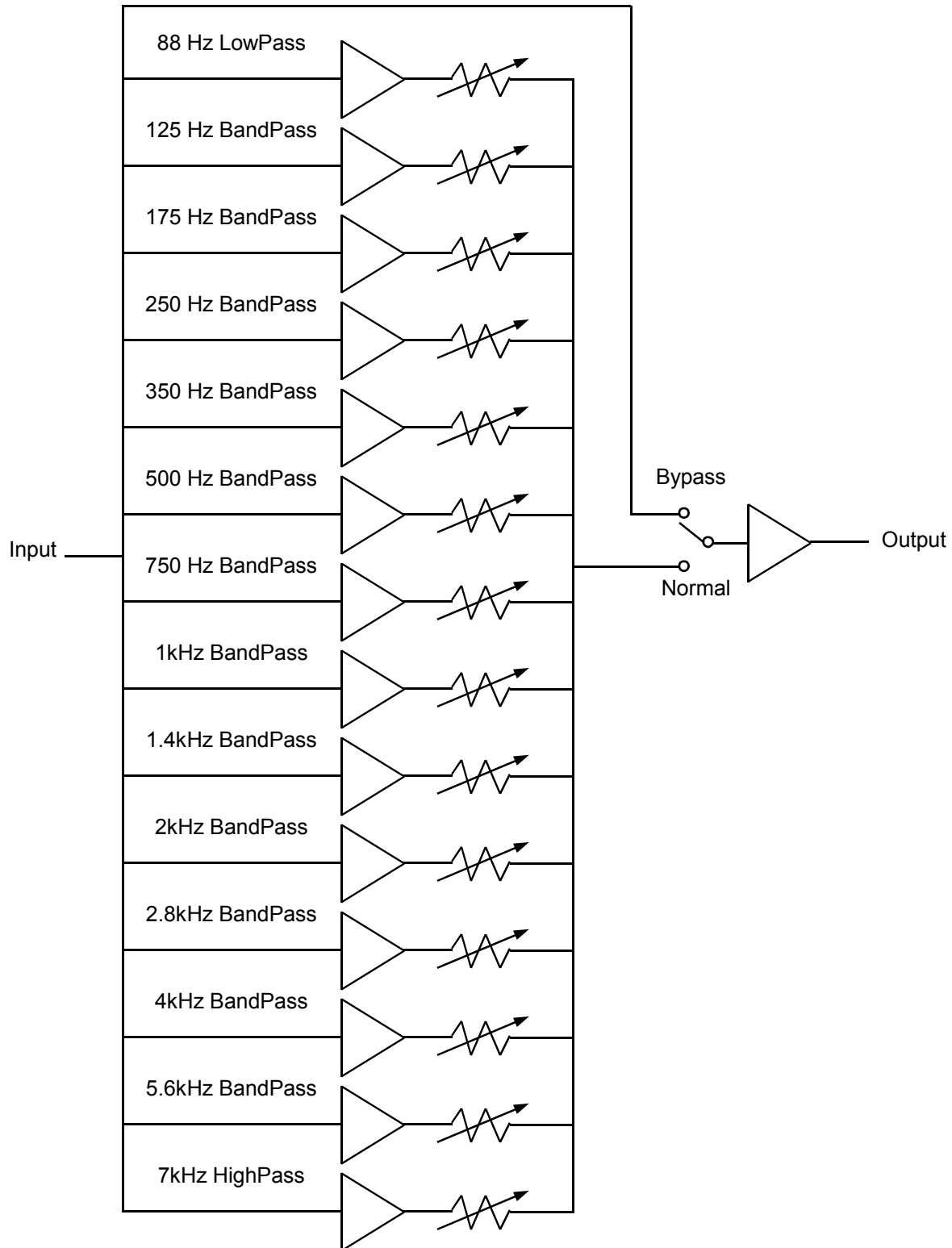
1. Apply a 10V PP 125Hz sine wave to the Input connector.
2. Turn the 125Hz knob to 10, all others to 0.
3. The Output connector should produce a 10V PP sine wave.
4. Use this test for each of the bandpass stages while changing the frequency to match each stage.
5. Turn the Lowpass knob to 10, all others to 0, set frequency to 88Hz.
6. The output level should be less than 10V PP and increase when the frequency is decreased.
7. Turn the Highpass knob to 10, all others to 0, set frequency to 7kHz.
8. The output level should be less than 10V PP and increase when the frequency is increased.



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Block Diagram



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