Options
Title: Accelero...r Amplifier
Author: mossmann
Description: Use a... pickup.
Output Language: Python
Generate Options: QT GUI

I2C Register Source
Sample Rate (sps): 6.621k
Device Address: 107
Register number: 44
Register size (bytes): 2
Register full scale: 65.535k
Sample Signedness: Unsigned
Prelude: gf.i2c....10, 0xa0])
Prelude script:

Sample the accelerometer's Z axis.

DC Blocker
Length: 32
Long Form: True

Remove DC component
of signal (e.g. gravity)
and low frequency rumble.

QT GUI Frequency Sink
FFT Size: 1.024k
Center Frequency (Hz): 0
Bandwidth (Hz): 6.621k

Variable
Id: samp_rate
Value: 6.621k

Rational Resampler
Interpolation: 29
Decimation: 4
Taps:
Fractional BW: 0

Convert sample rate from
maximum supported by
accelerometer to audio
sample rate of 48 ksps.

QT GUI Range
Id: post
Default Value: 1
Start: 0
Stop: 11.1
Step: 100m

Multiply Const
Constant: 1

pre-gain

Multiply Const
Constant: 90.9091m

QT GUI Time Sink
Number of Points: 1.024k
Sample Rate: 48.0022k
Autoscale: No

QT GUI Range
Id: pre
Default Value: 100m
Start: 0
Stop: 11.1
Step: 100m

Rail
Low clipping: -1
Hi clipping: 1

distortion!

Multiply Const
Constant: 90.9091m

post-gain

Audio Sink
Sample Rate: 48 kHz