Multiple ADXL locations

Using Kalico to test all ADXL’s at once

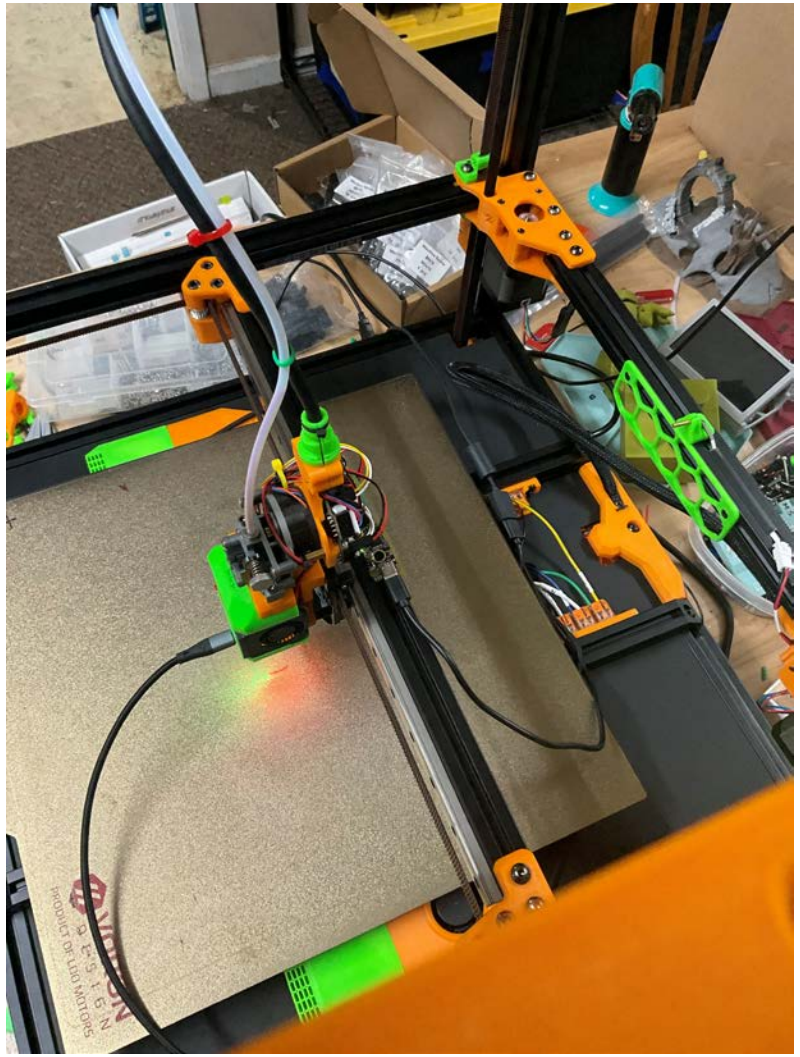
Features

- Setting up all adxl345 at one time.
- Using “is_non_critical: true” to be able to home/qgl/home z
- Reattaching all adxl’s then run a single test to test all adxls

ADXL’s and placement

1) EBB36 adxl
2) Cartographer ADXL
3) Provok3d adxl (on nozzle)
4) BTT ADXL345 v2.0 (on x-extrusion)

Note: the nozzle adxl is on a revo results may look worse



Kalico setup

Provok3d adxl

[mcu boxxy]

serial: /dev/serial/by-id/usb-Anchor_Ampon-if00

is_non_critical: True

[adxl345 boxxy]cs_pin: boxxy:CS

Big Tree Tech Adxl345 v2.0

[mcu btt]serial: /dev/serial/by-id/usb-Klipper_rp2040_45474150510A943A-if00

is_non_critical: True

[adxl345 btt]

cs_pin: btt:gpio9

spi_software_sclk_pin: btt:gpio10

spi_software_mosi_pin: btt:gpio11s

pi_software_miso_pin: btt:gpio8

Kalico Resonance testor

```
# #########
# reasonance tester
# #########
[resonance_tester]
accel_chips: adxl345 ebb36, adxl345 btt, adxl345 boxxy, adxl345 carto
probe_points:     175, 175, 50
accel_per_hz: 75
sweeping_accel: 400
sweeping_period: 0
```

Testing x-axis - commands

####run in console####

TEST_RESONANCES AXIS=X OUTPUT=raw_data FREQ_START=5 FREQ_END=133 HZ_PER_SEC=1 CHIPS="adxl345 ebb36, adxl345 btt, adxl345 boxxy, adxl345 carto" ACCEL_PER_HZ=75

####run in SSH####

~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/raw_data_x_ebb36*.csv –o /tmp/shaper_calibrate_ebb36_x.png

~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/raw_data_x_boxxy*.csv –o /tmp/shaper_calibrate_boxxy_x.png

~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/raw_data_x_carto*.csv –o

/tmp/shaper_calibrate_carto_x.png

~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/raw_data_x_btt*.csv -o /tmp/shaper_calibrate_btt_x.png

Testing y-axis - commands

####run in console####

TEST_RESONANCES AXIS=Y OUTPUT=raw_data FREQ_START=5 FREQ_END=133 HZ_PER_SEC=1 CHIPS="adxl345 ebb36, adxl345 btt, adxl345 boxxy, adxl345 carto" ACCEL_PER_HZ=75

####run in SSH####

~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/raw_data_y_ebb36*.csv –o /tmp/shaper_calibrate_ebb36_y.png

~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/raw_data_y_boxxy*.csv –o /tmp/shaper_calibrate_boxxy_y.png

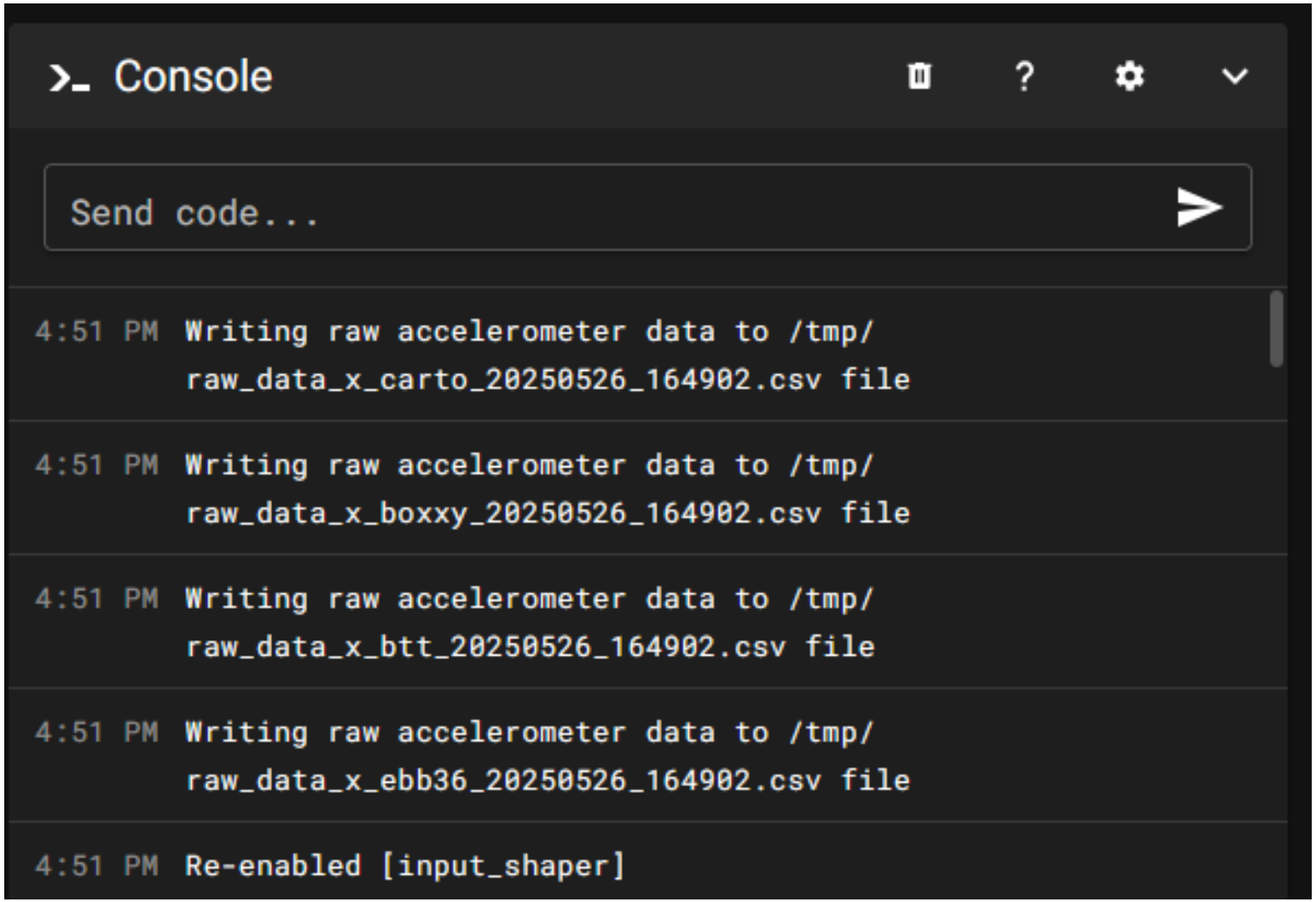
~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/raw_data_y_carto*.csv –o

/tmp/shaper_calibrate_carto_y.png

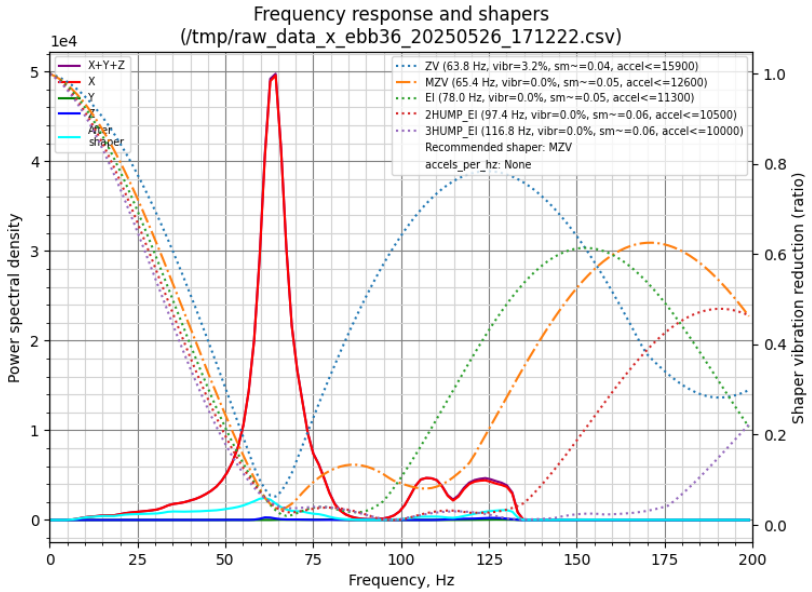
~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/raw_data_y_btt*.csv -o /tmp/shaper_calibrate_btt_y.png

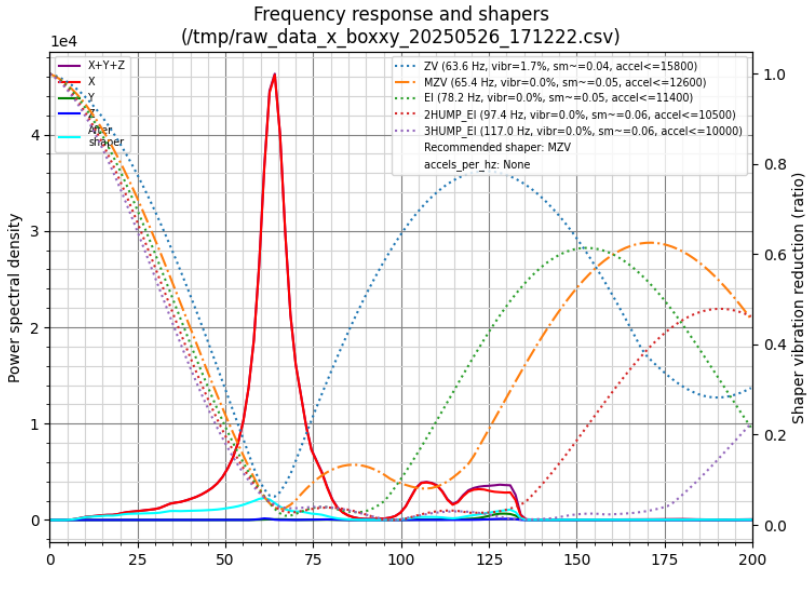
Error if non-critical mcu (adxl) not connected

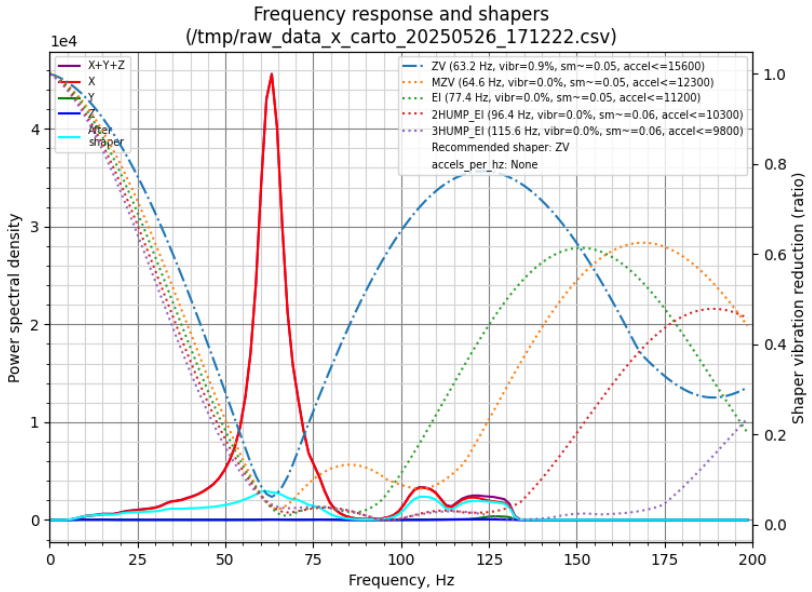
What console outputs after test done

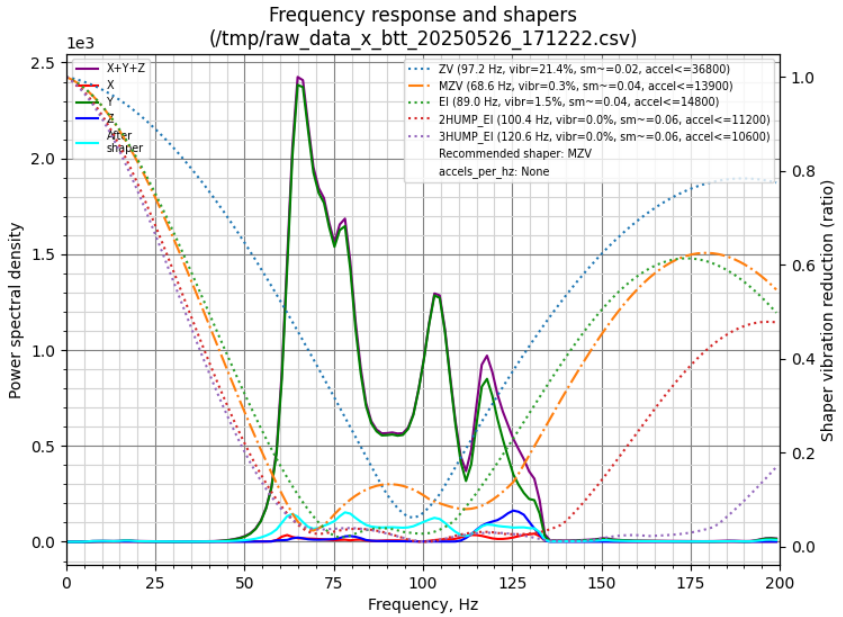


Graphs X-axis

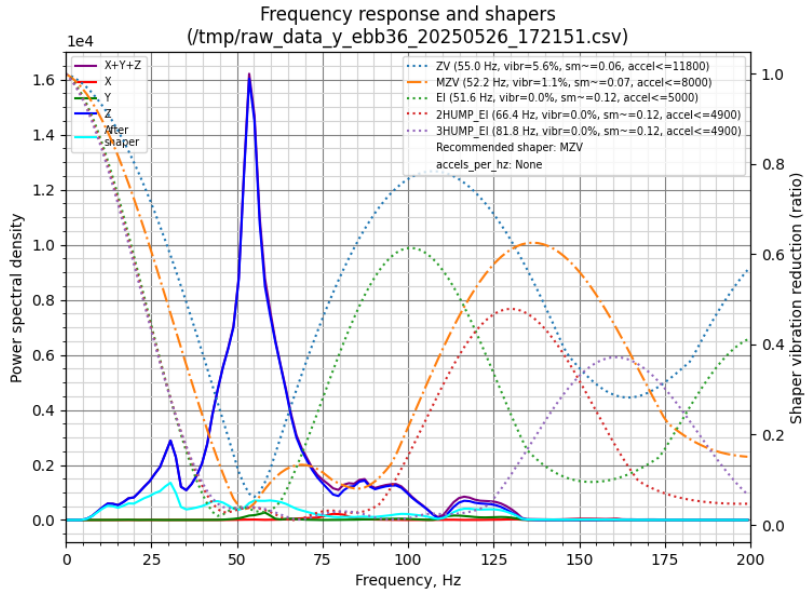


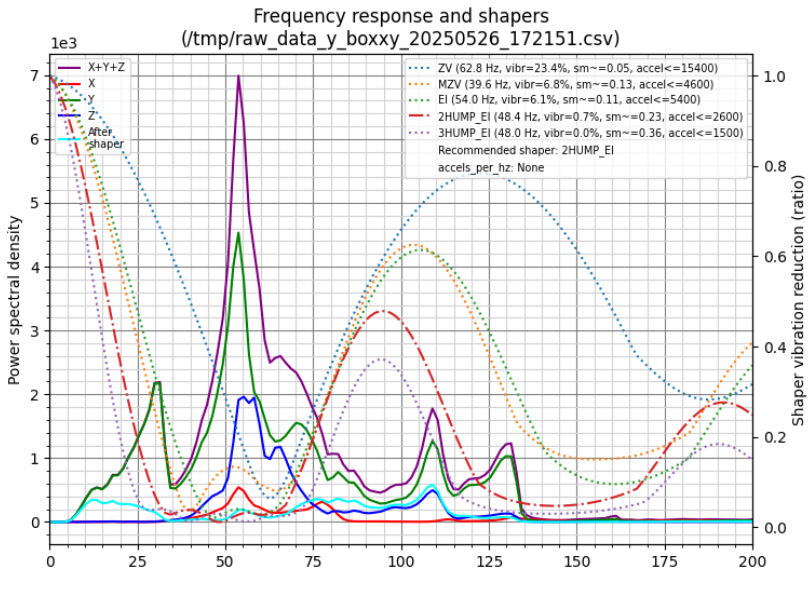


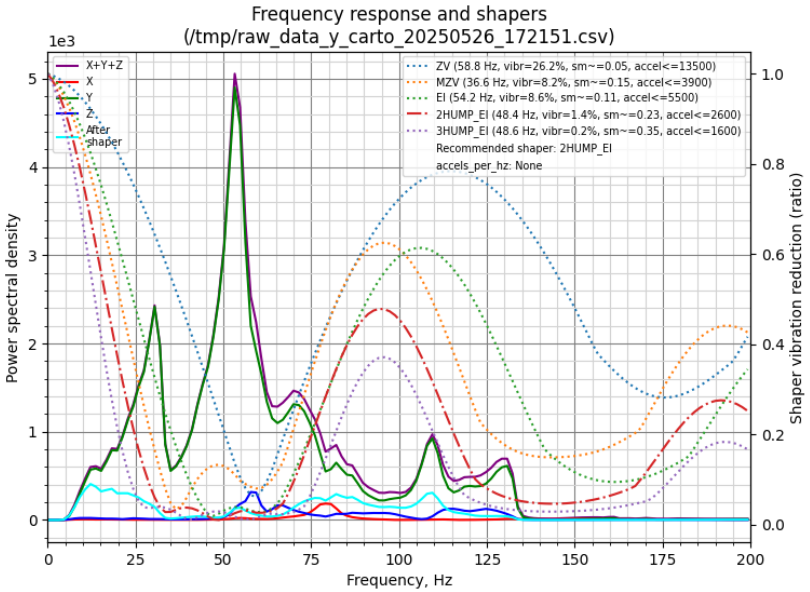


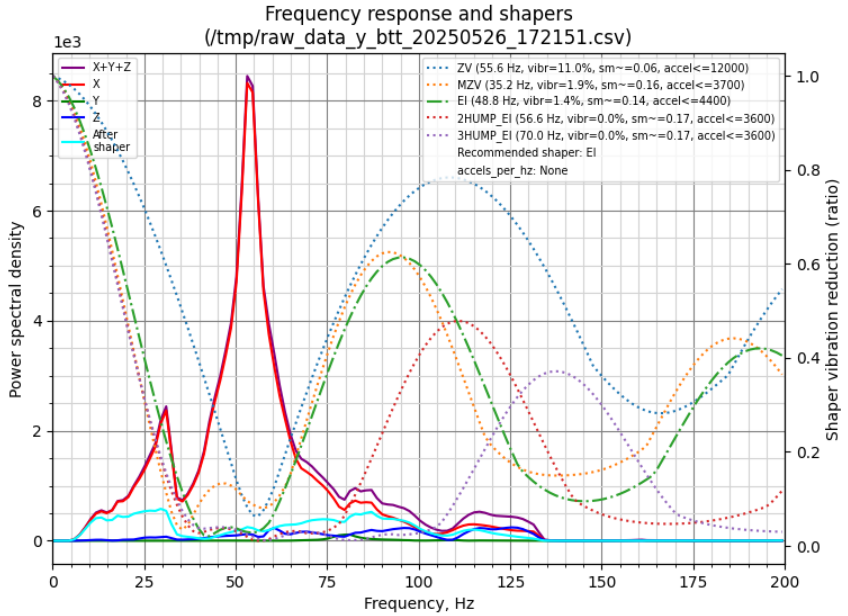


Graphs Y-axis









Combining adxl’s in a single graph

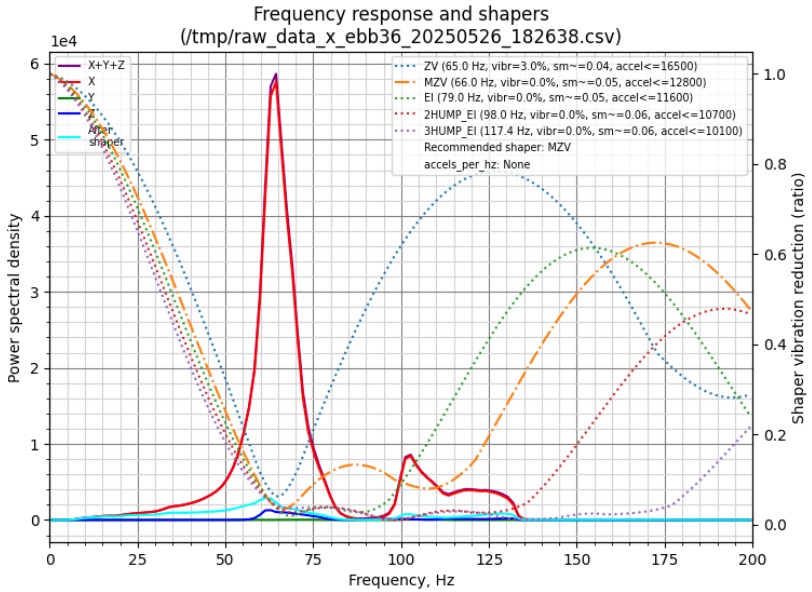
- Kalico also allows us to combine multiple adxl’s into a single graph.

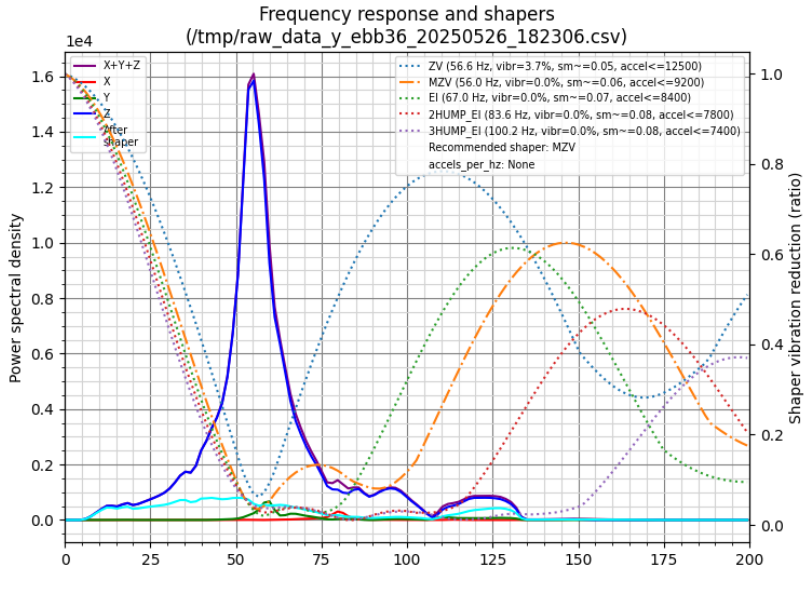
- Testing of this will start with presenting individual graphs as before to verify data, and then will present a single graphs

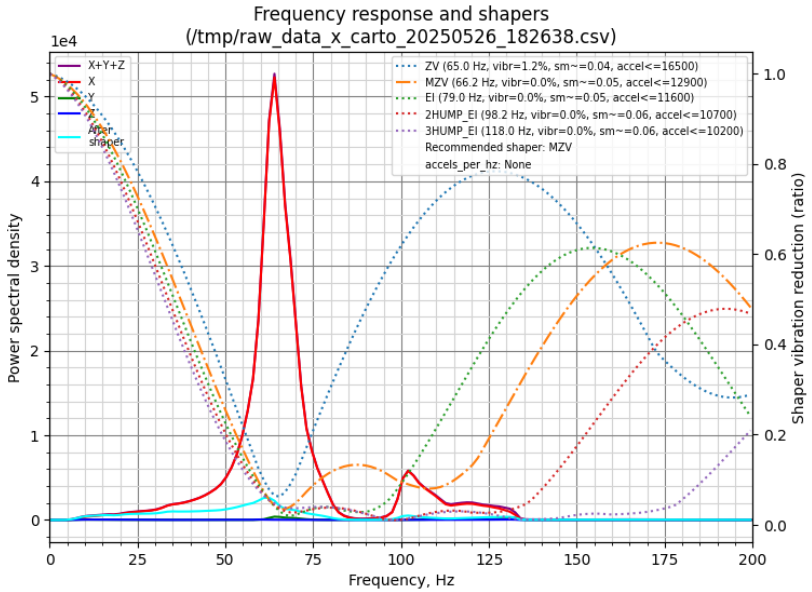
Measure multiple adxls in a single graph

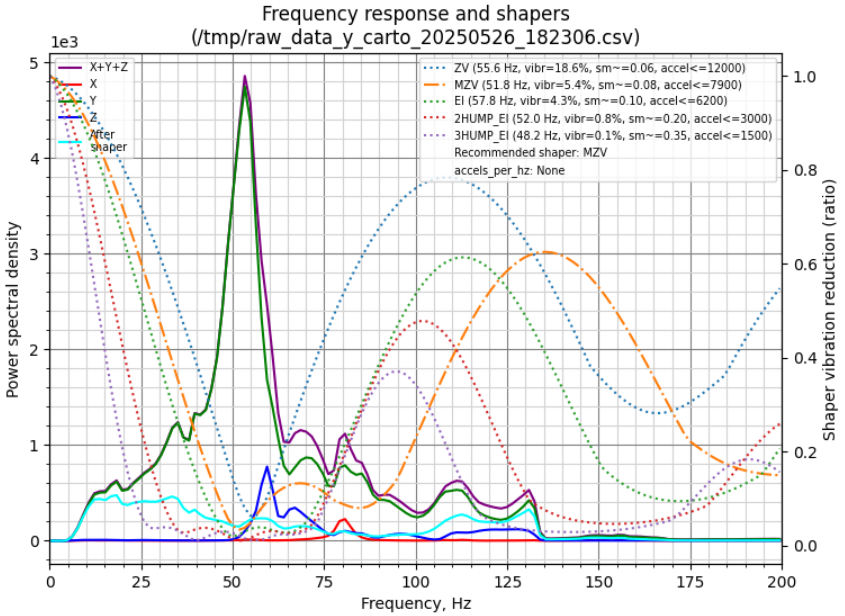
- TEST_RESONANCES AXIS=X OUTPUT=resonances FREQ_START=5 FREQ_END=133 HZ_PER_SEC=1 CHIPS="adxl345 ebb36, adxl345 carto" ACCEL_PER_HZ=75
- TEST_RESONANCES AXIS=Y OUTPUT=resonances FREQ_START=5 FREQ_END=133 HZ_PER_SEC=1 CHIPS="adxl345 ebb36, adxl345 carto" ACCEL_PER_HZ=75
- ~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/resonances_x*.csv -o /tmp/shaper_calibrate_x.png
- ~/klippy-env/bin/python ~/klipper/scripts/calibrate_shaper.py /tmp/resonances_y*.csv -o /tmp/shaper_calibrate_y.png

Graphs x and Y axis – ebb36 and carto









Graphs x and Y axis – ebb36 and carto - combined