Updated on 2016.5.25

# Status report : about the Monolithic Accelerometers(ACCs) Test

## ❒ Next : 2016.5.23 - 2016.5.27

### ❒ 2 or 3 days are to be used for measurements of current PR3 system

* ~~Spectra, Force TF~~, OpenLoop-TF, Mechanical Q factors are to be measured.

### ❒ About ACCs :

~~* Update the calibration result on 2016.5.20.~~

~~* Measure the ACC TFs.~~ → ~~I seemed to miss the cabling in somewhere,,~~

~~* Complete the calibration of the ACC signals with using shims.~~

⇨ Question is found.

* Plot the ACC spectra in [m/rtHz], again.
* ---- check with Joris about above results -----
* Do the 3-channel correlation measurements.

(* Measure IP TFs to determine the resonance frequencies of IP.)

To be confirmed

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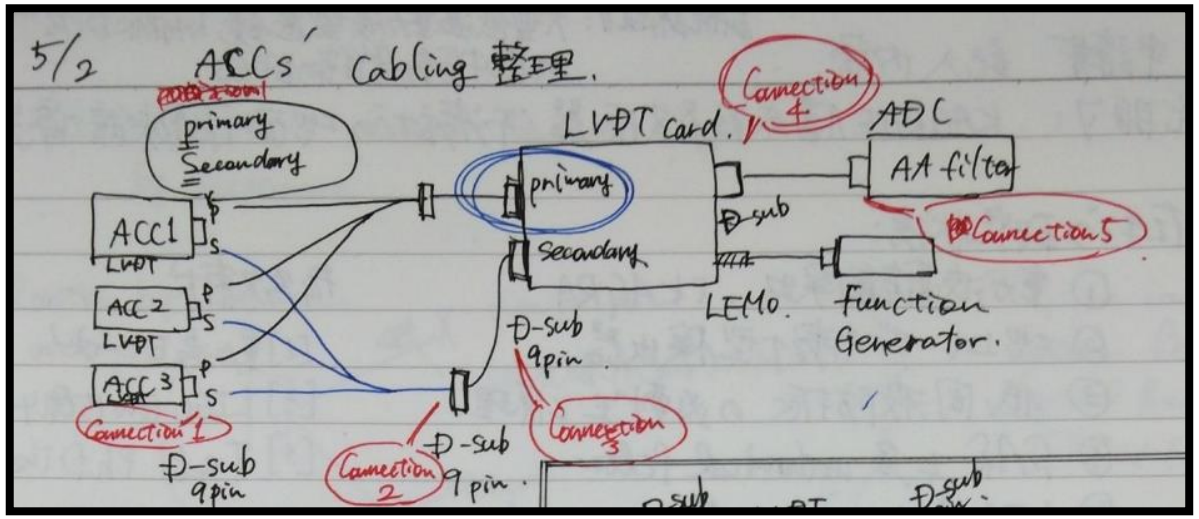
## ❖ 2016.5.23

At connection 1

* Some resistances at “connection 1” are measured.




* Do you find any strange resistances?

I would like to know

1) the numbers which you expect, and

2) in which situation they should be measured.

### ①With Power supply, With modulation

| | | (Not used) | | (Not used) | (Not used) |
|---|---|---|---|---|---|
| Resistance [Ohm] | 1-6 pin | 2-7 pin | 3-8 pin | 4-9 pin | |
| ACC_H1 | 966 | O.F. | O.F. | O.F. | |
| ACC_H2 | 972 | O.F. | O.F. | O.F. | |
| ACC_H3 | 971 | O.F. | O.F. | O.F. | |

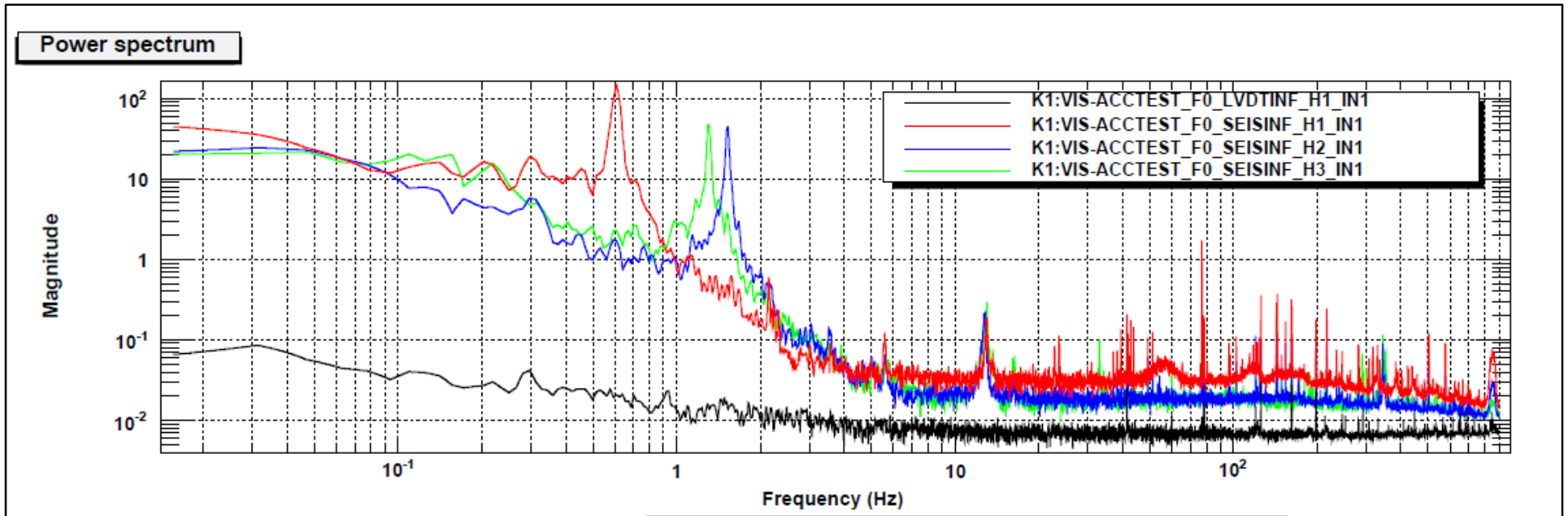
### ②With Power supply, Without modulation

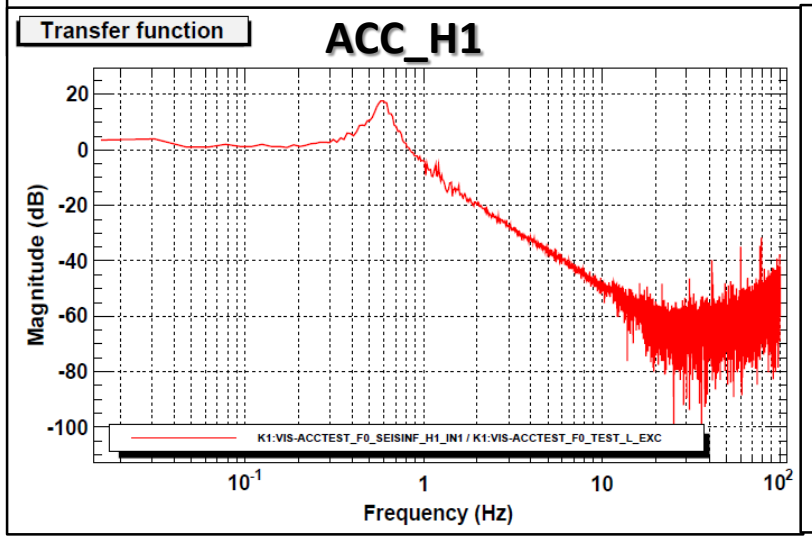
| Resistance [Ohm] | 1-6 pin | 2-7 pin | 3-8 pin | 4-9 pin |
|---|---|---|---|---|
| ACC_H1 | 966 | O.F. | 185.1 | O.F. |
| ACC_H2 | 972 | O.F. | 198.2 | O.F. |
| ACC_H3 | 972 | O.F. | 212.9 | O.F. |

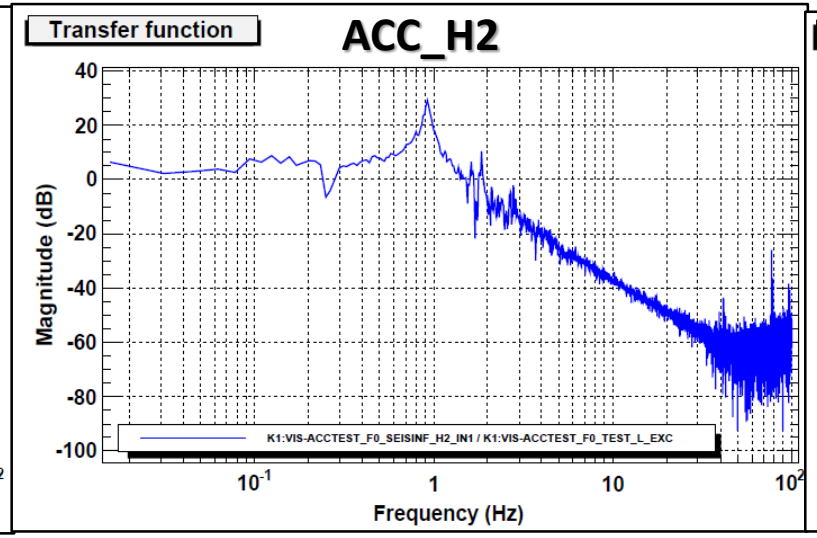
### ③Without Power supply, Without modulation

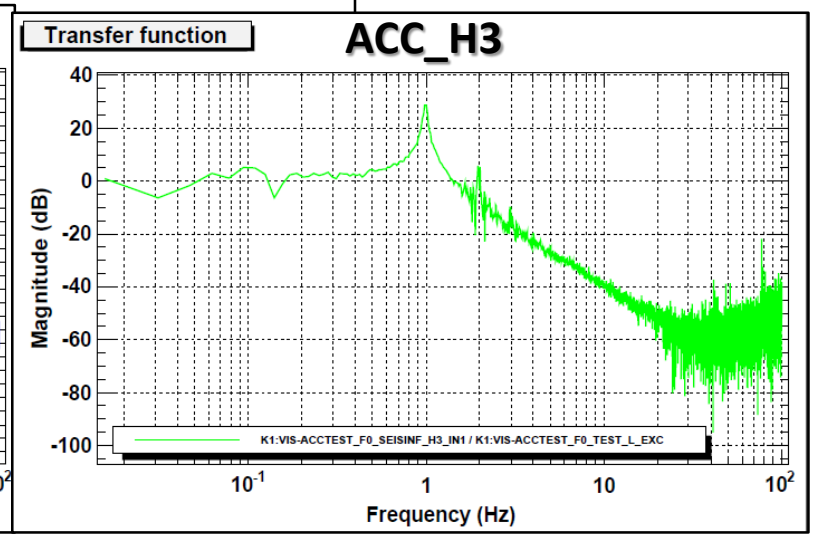
| Resistance [Ohm] | 1-6 pin | 2-7 pin | 3-8 pin | 4-9 pin |
|---|---|---|---|---|
| ACC_H1 | 994 | O.F. | 4740 | O.F. |
| ACC_H2 | 993 | O.F. | 4650 | O.F. |
| ACC_H3 | 994 | O.F. | 4700 | O.F. |

# ❒ ACC TF measurement. (about the plots, see k-log post)




*** The natural frequencies of ACC_H2, ACC_H3, obtained from TFs doesn't correspond with the frequencies, obtained from spectra.**

**Still, I'm not sure why this occurs. Q factors are to be calculated.**

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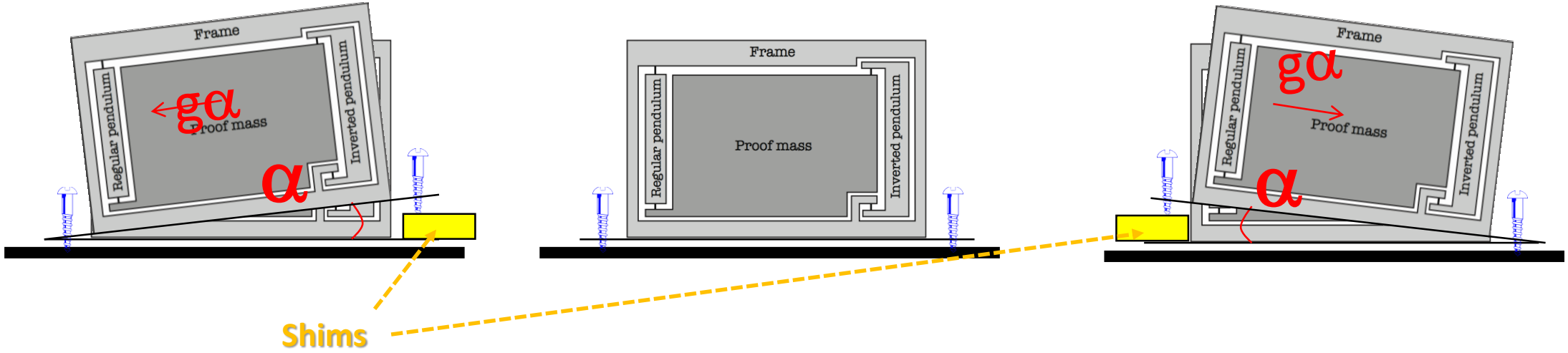
- **2016.5.19 - 2016.5.21**
  - **ACC_H3 is calibrated, with using 20 um shims.**

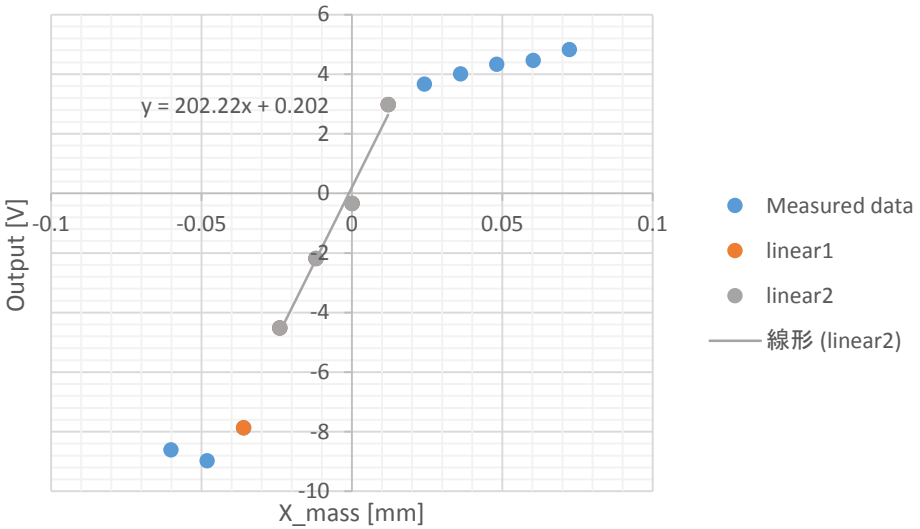



~~(On Friday, I forgot to pick up the information from a notebook, which stays in a clean booth. So, I will update the results tomorrow 23th May.)~~

# Status report : about the Monolithic Accelerometers(ACCs) Test

## ❒ 2016.5.23

### ❒ ACC_H3 is calibrated, with using 20 um shims.




**If I didn’t take any mis-calculation,**
**The measured calibration factor is 202 V/mm.**

**(→ Please see and check my excel sheet, just in case.)**