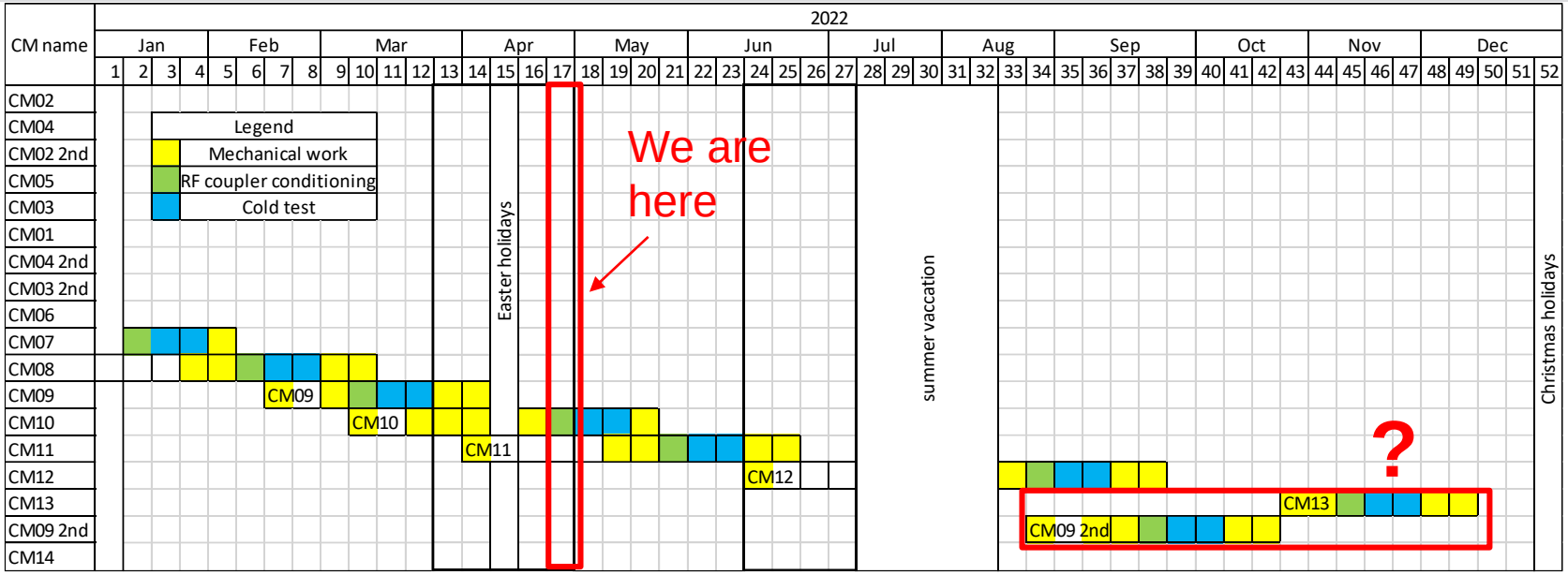
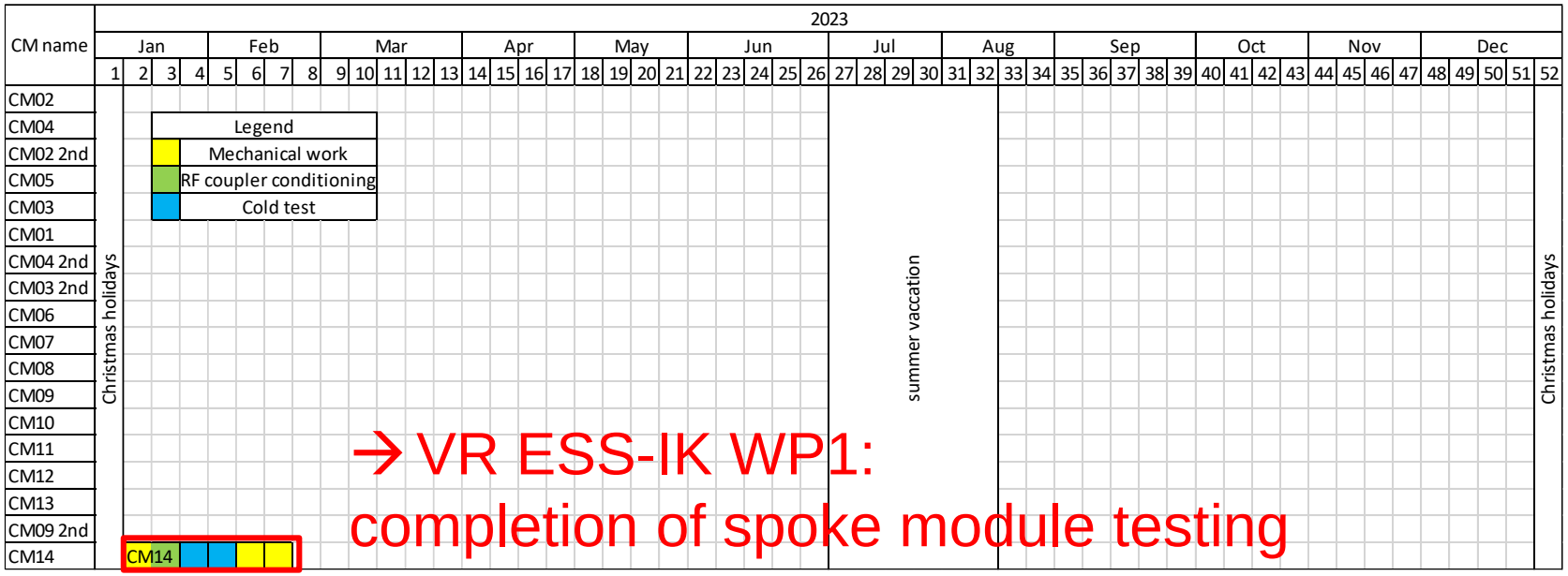
UPPSALA
UNIVERSITET

# ESS weekly meeting (2022 W18)

A. Miyazaki, et al

# Planning updated (preliminary)




→ VR ESS-IK WP1:
completion of spoke module testing

# W17 & W18 progress / W19 plan

| week | | W17 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| date | | MON | | TUE | | WED | | THU | | FRI | | SAT | SUN |
| | | 25-apr | | 26-apr | | 27-apr | | 28-apr | | 29-apr | | 30-apr | 01-maj |
| | | m | a | m | a | m | a | m | a | m | a | | |
| present CM | **CM10** | fix Electrosys | coupler warm conditioning | | LN cooling | | LHe cooling | 4K filling | | coupler cold conditioning | | thermalization | |
| next CM | **CM11** | | | | | | | | | | | | |
| next next CM | **CM12** | Preparation at Orsay | | | | | | | | | | | |

**We are here**

| week | | W18 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| date | | MON | | TUE | | WED | | THU | | FRI | | SAT | SUN |
| | | 02-maj | | 03-maj | | 04-maj | | 05-maj | | 06-maj | | 07-maj | 08-maj |
| | | m | a | m | a | m | a | m | a | m | a | | |
| present CM | **CM10** | 2K pumping | RF calibration | tuner test ☹ | | tuner test contiuned / CTS2 disengage | | RF interlock setup | CAVOUT MP conditioning | CAVIN MP conditioning | | | |
| next CM | **CM11** | leak test | | | | | | | | | | | |
| next next CM | **CM12** | preparation at Orsay | | | | | | | | | | | |

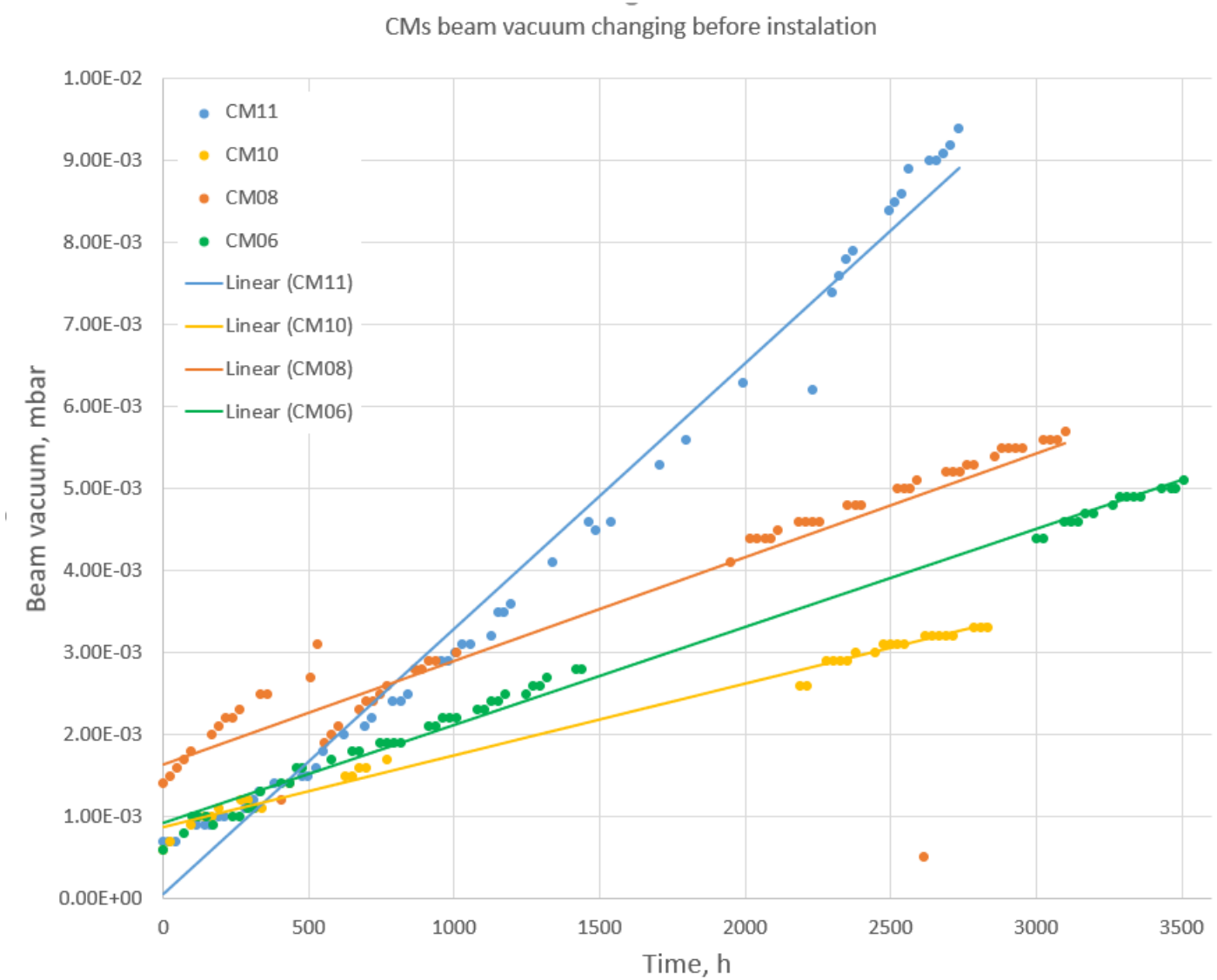
**Goal of the test**

| week | | W19 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| date | | MON | | TUE | | WED | | THU | | FRI | | SAT | SUN |
| | | 09-maj | | 10-maj | | 11-maj | | 12-maj | | 13-maj | | 14-maj | 15-maj |
| | | m | a | m | a | m | a | m | a | m | a | | |
| present CM | **CM10** | heat load measurement / FREIA LLRF tests | | | | start warming up | | break insulation vacuum | | warming up | | | |
| next CM | **CM11** | doorknob mounting | | | | | | | | | | | |
| next next CM | **CM12** | preparation at Orsay | | | | | | | | | | | |

CM10 will not depart to ESS

→ TBD: repairing at FREIA or IJCLab

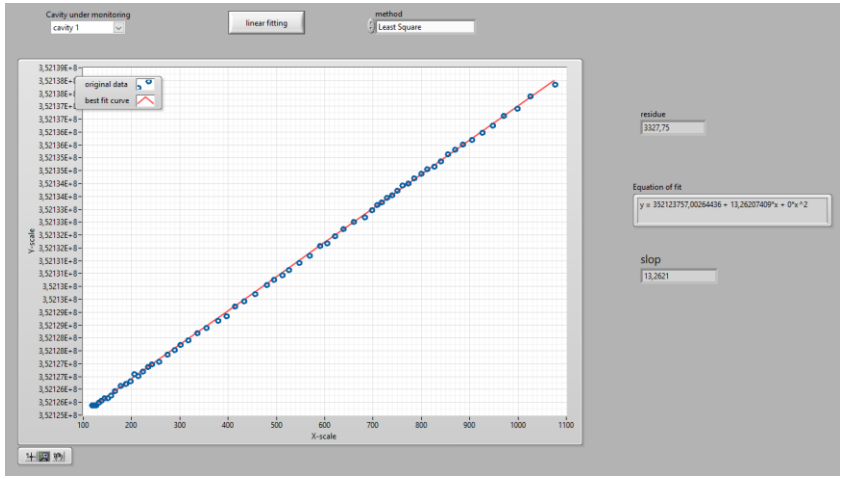
# CM11: small doubt in vacuum **excluded**




We performed a dedicated leak test (turbo + He leak detector) and confirmed no leak

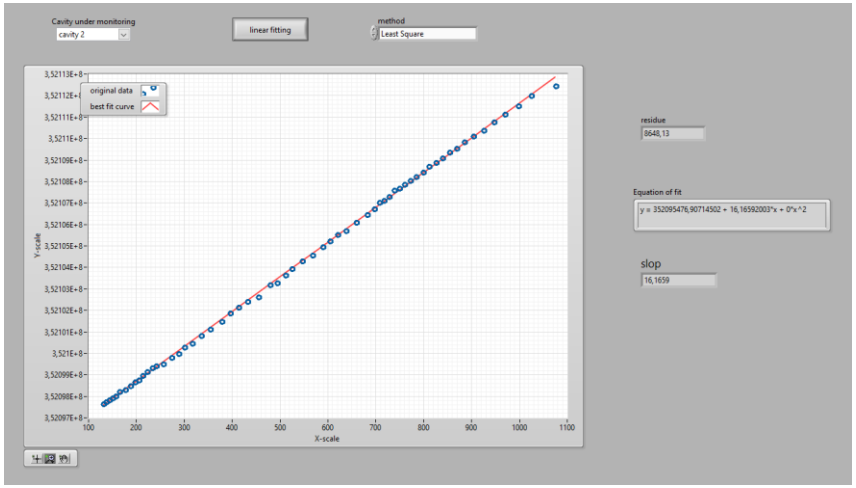
# CM10: 2K pumping was OK

## CAVIN

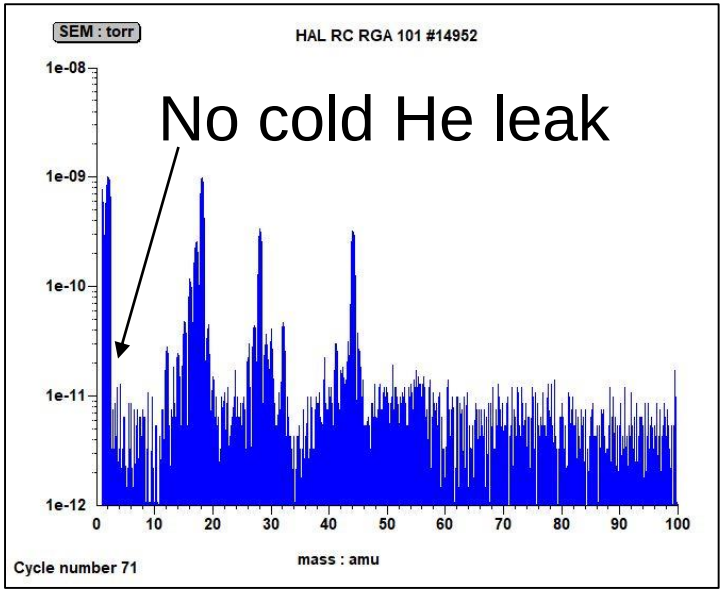



df/dp = 13.3 Hz/mbar

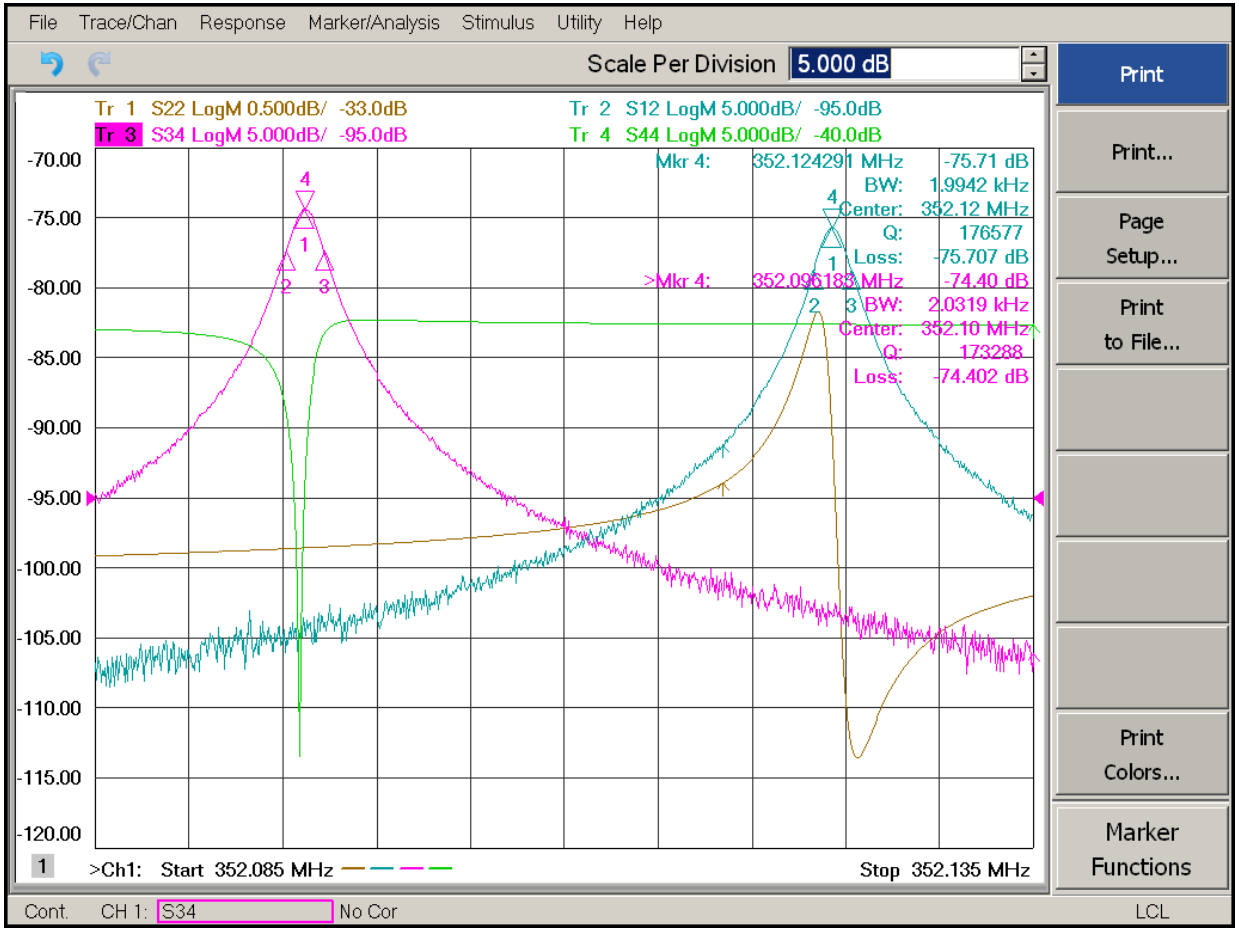
## CAVOUT




df/dp = 16.2 Hz/mbar

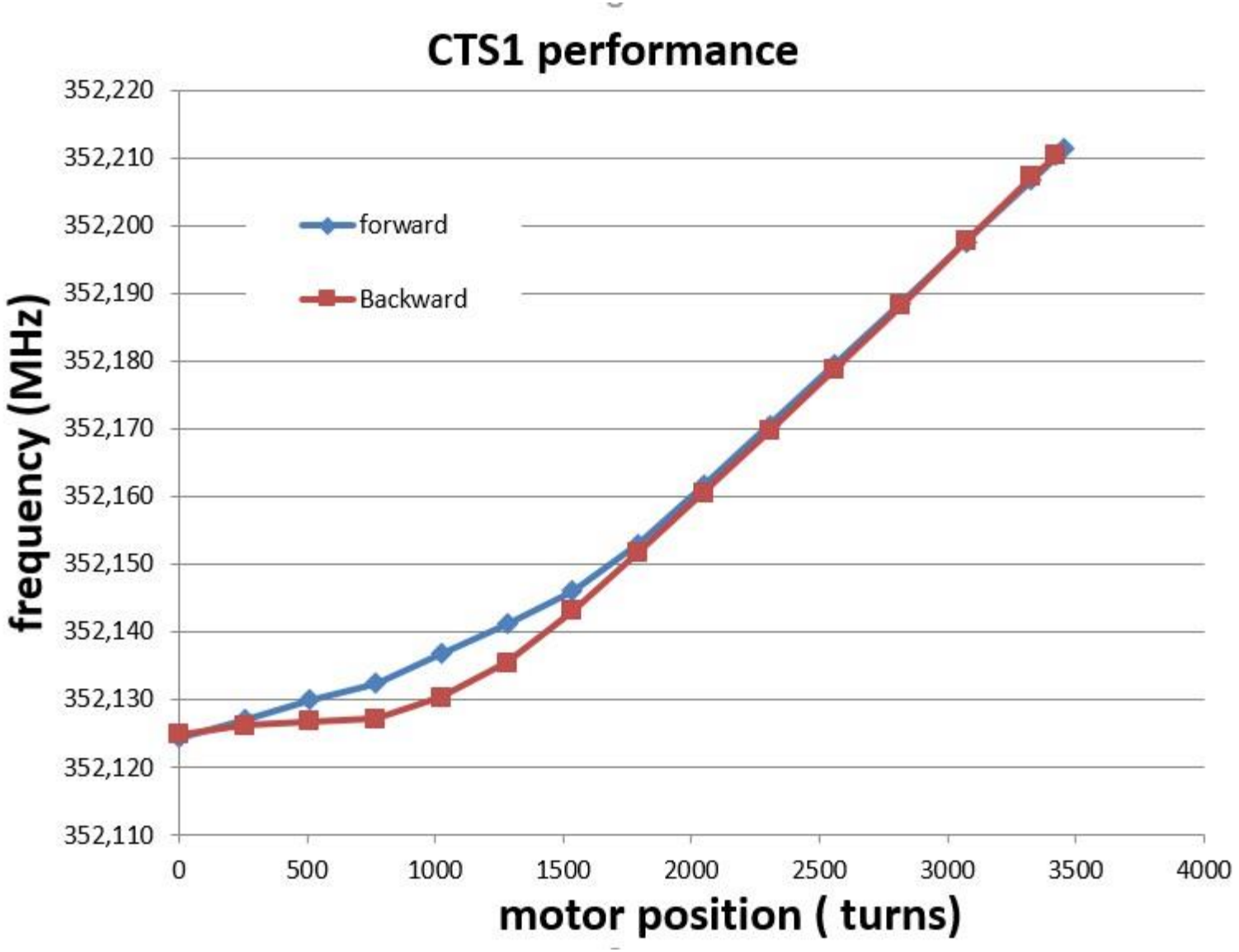


# CM10: cavity parameters at 2K home position

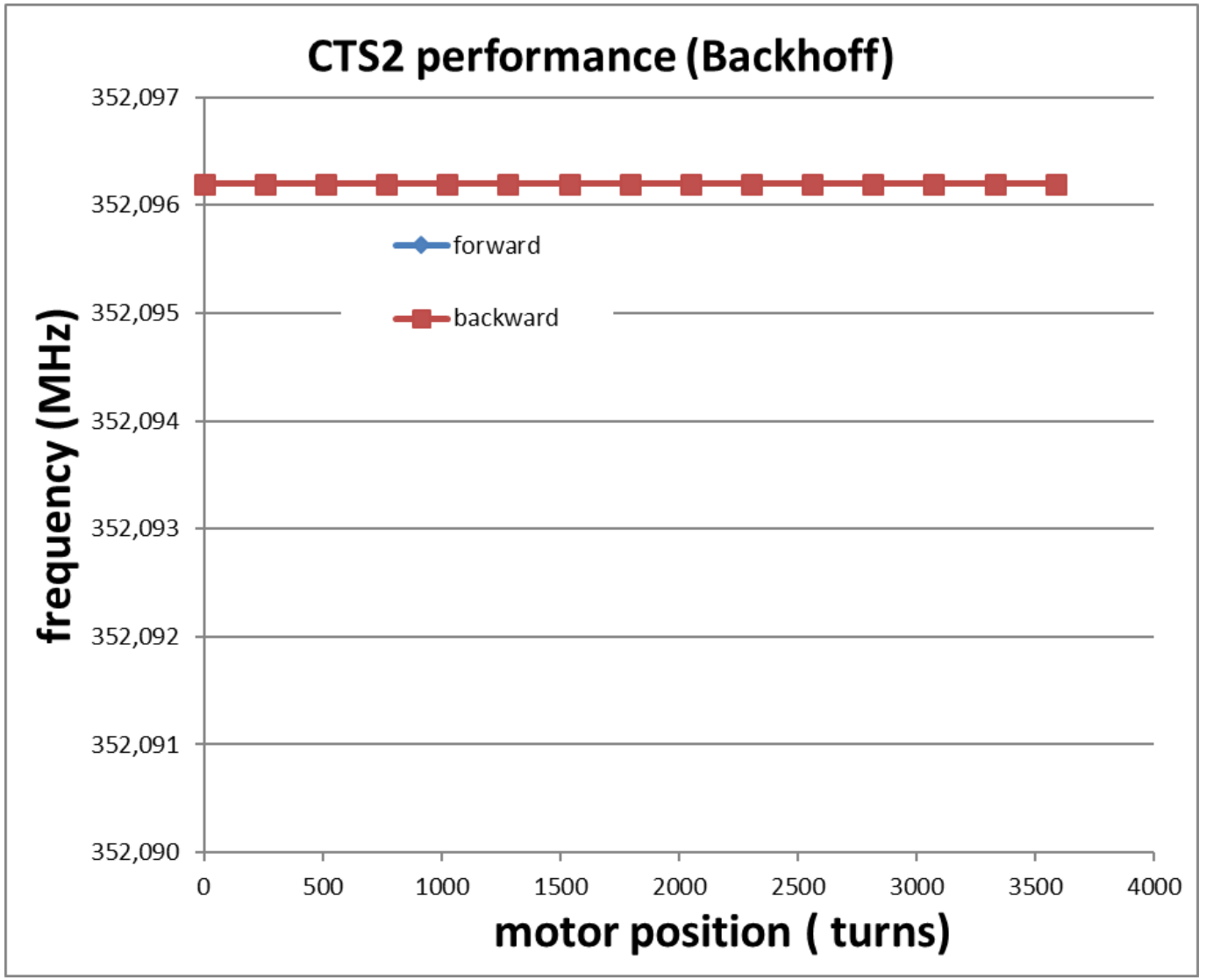



| | CAVIN | CAVOUT |
|---|---|---|
| f0 [MHz] | 352.124 | 352.096 |
| QL | 1.77e5 | 1.73e5 |

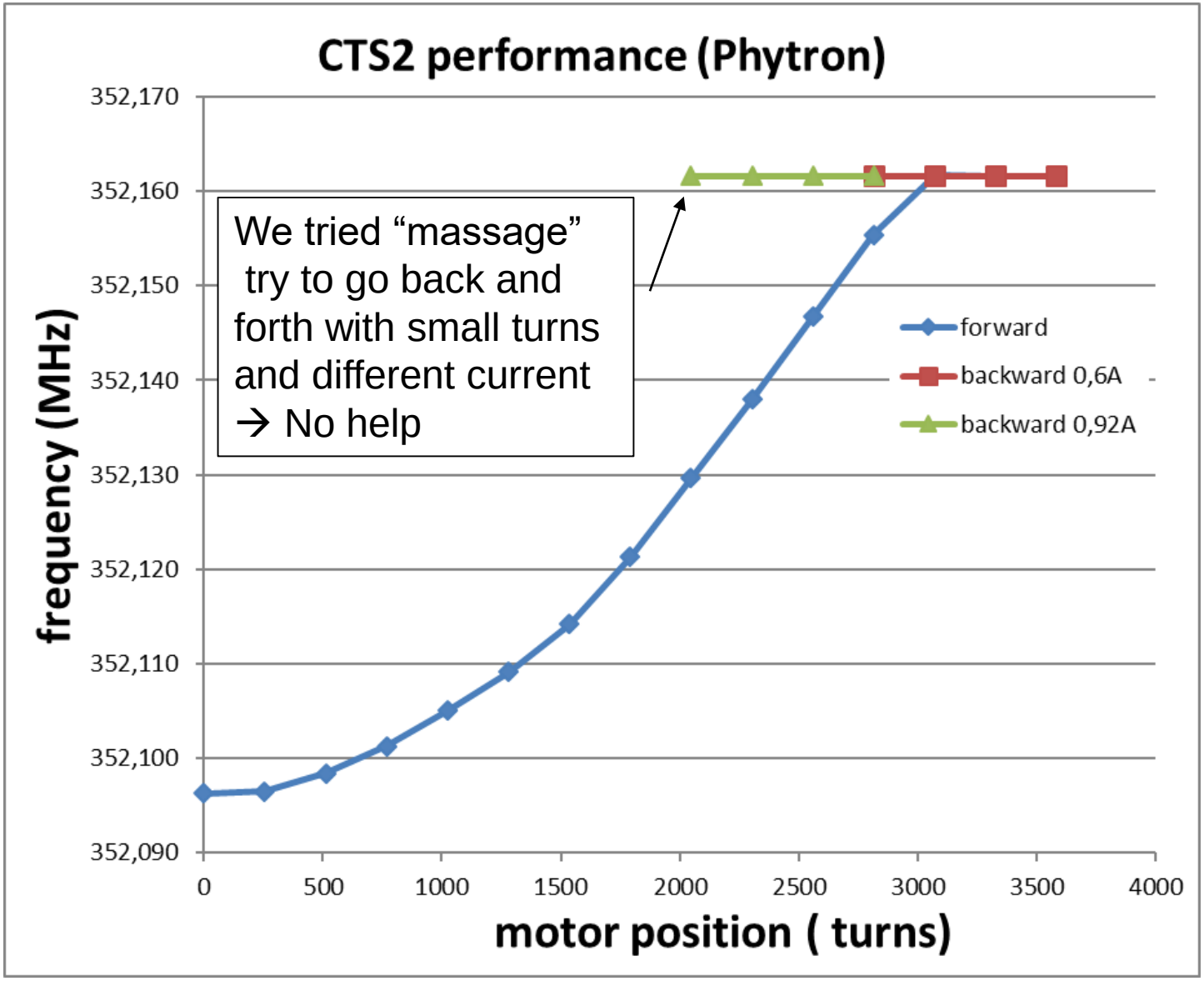
# CM10: CAVIN CTS1 was OK



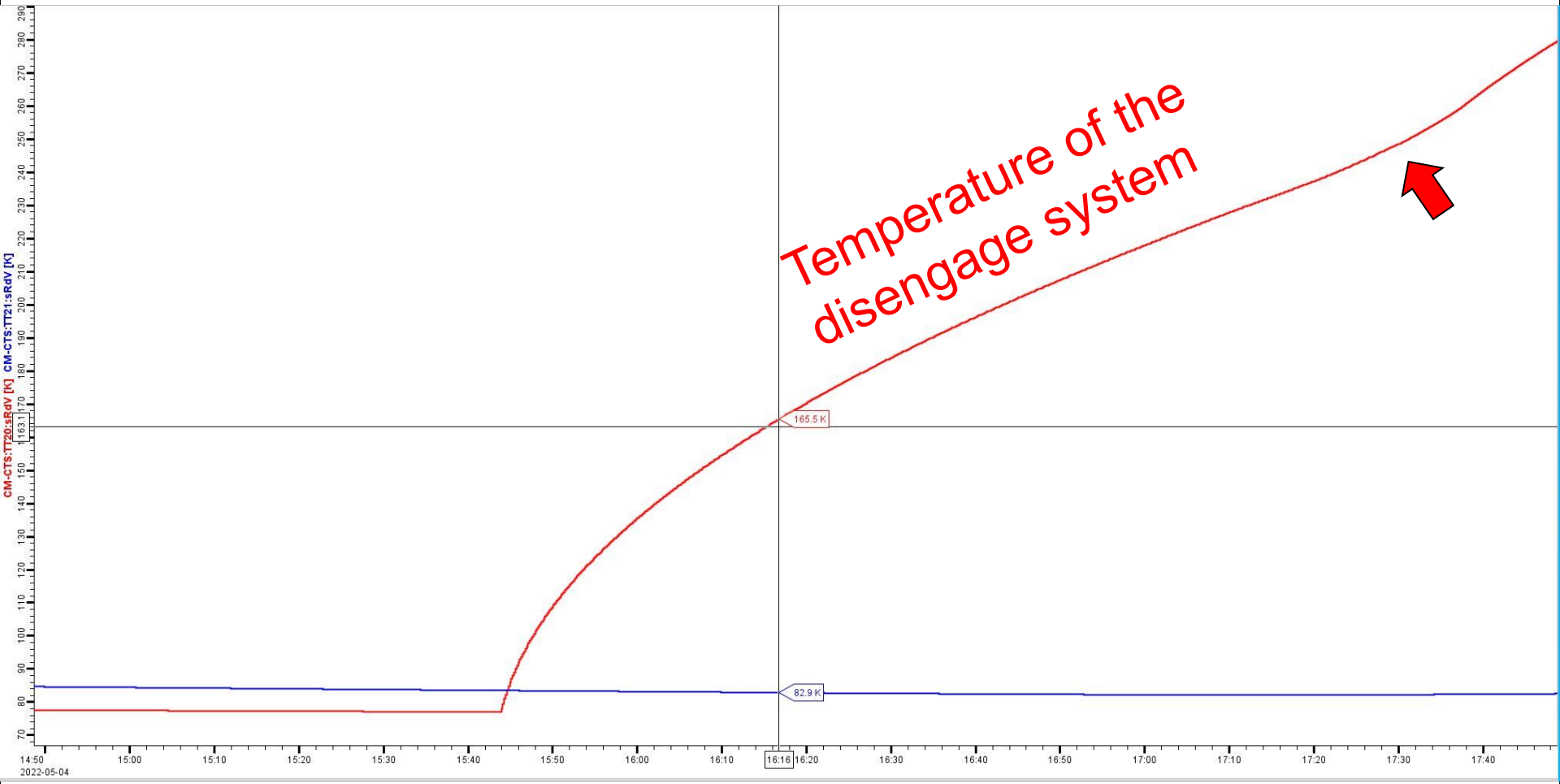
# CM10: CAVOUT CTS2 with Beckhoff PLC



# CM10: CAVOUT CTS2 with Phytron



# CM10: CTS2 was disengaged




We kept it at 290K and tried to move the stepper motor back to the home position

→ No limit switch signal even with 18 turns