

Cgem Status

Report on week 11-18 Nov

List of activities for this coming week

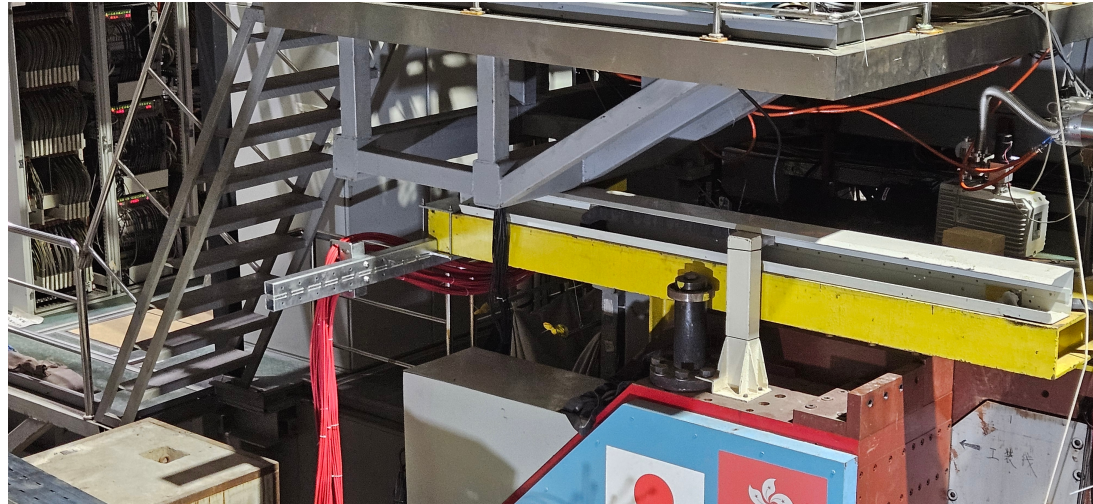
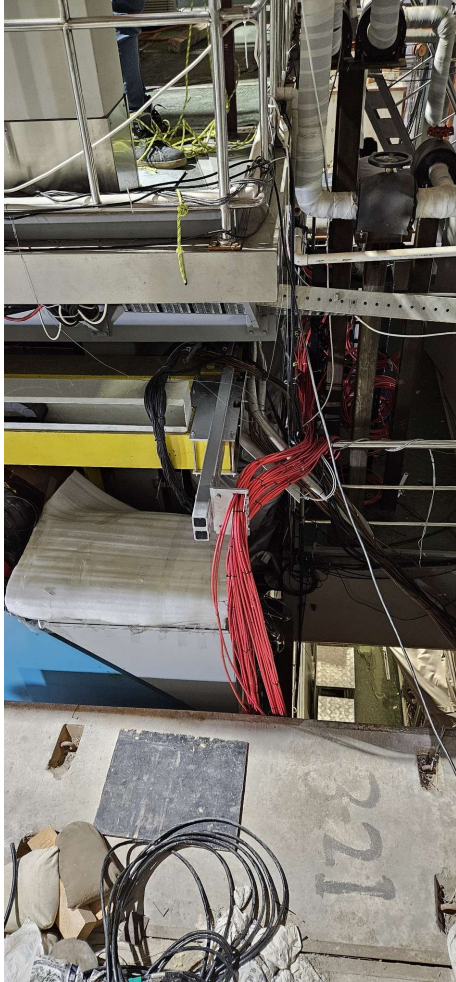
- Outside area
 - Mounting HV cable holders
 - Mounting LV/Data cable holders
 - Preparing cables for EMC pushing and beam pipe insertion
- Inside the cone:
 - Splitting of gas line
 - Installing cable holders inside the cone (both west and east)

About the cable holders

Mounted the HV cable holders on both sides

Also mounted cable holders for LV and DATA LH cables at the accelerator level

One still missing due to mechanical interference with a metal tube

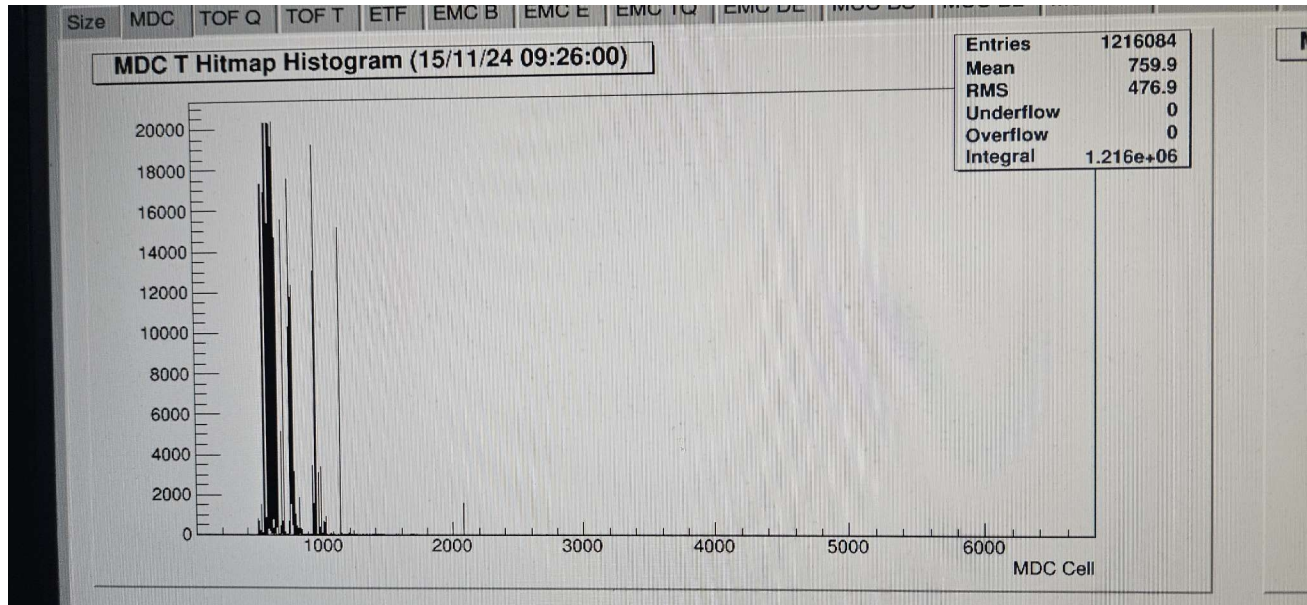


Other activities

- We powered on the detector regularly
 - everything seems normal
- Powered on together with MDC for the first time, no problem
 - We are very happy

CGEM – MDC noise

We run few tests on our grounding and on effect of shielding the DLVPC



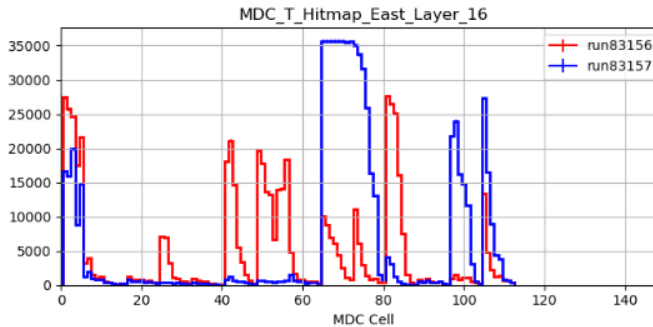
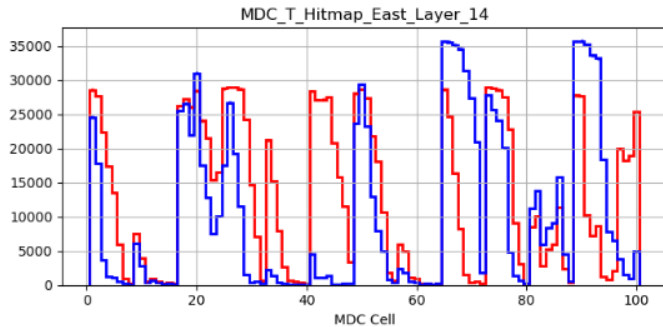
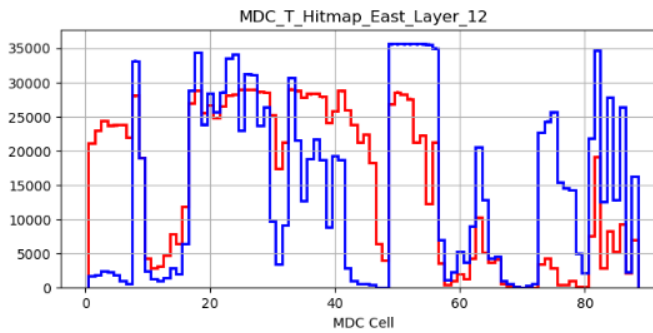
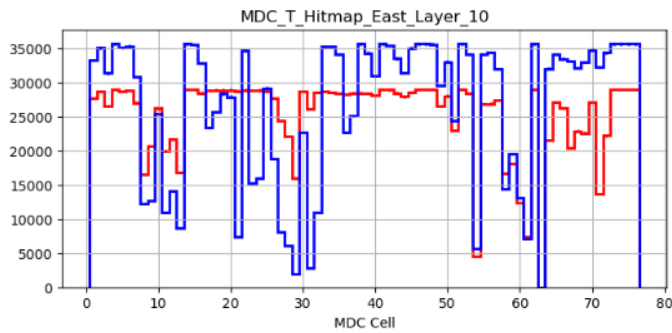
This is noise on the STEP MDC with almost all the “external” connection disconnected

CGEM – MDC noise

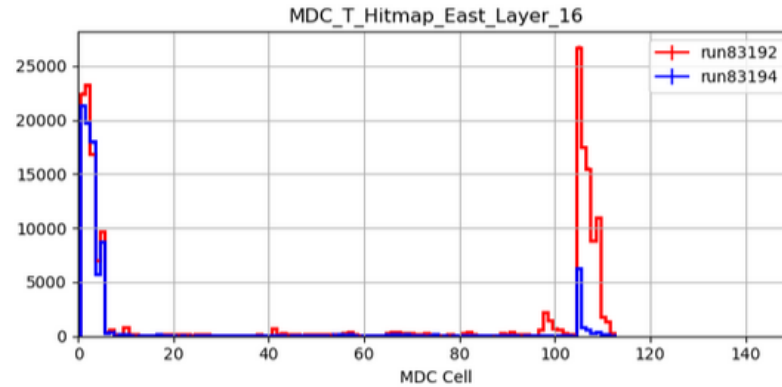
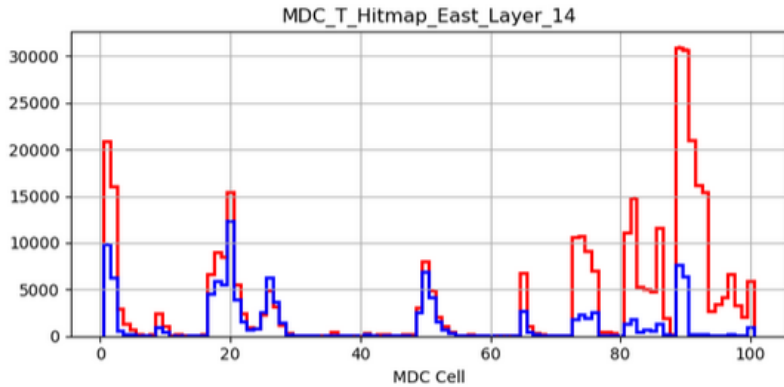
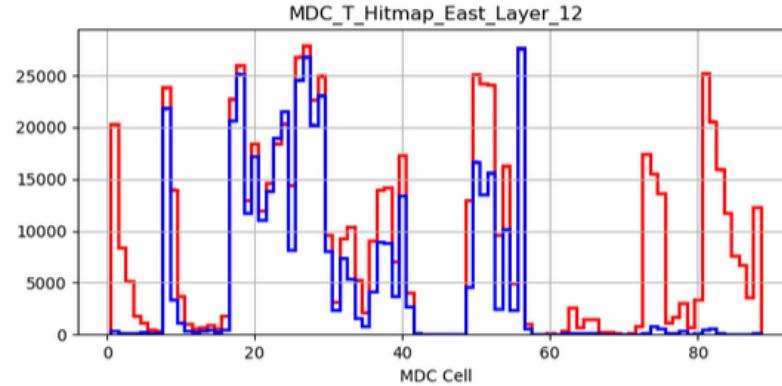
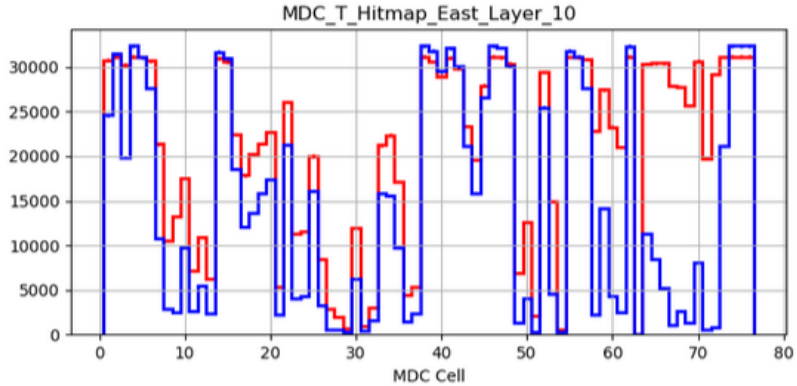
RUN	Time	Description
83156	11:50	FEB L1 EAST ON
83157	11:53	FEB L2 (di GEMROC 8-9) EAST ON

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Test with only few FEB on internal layers power on



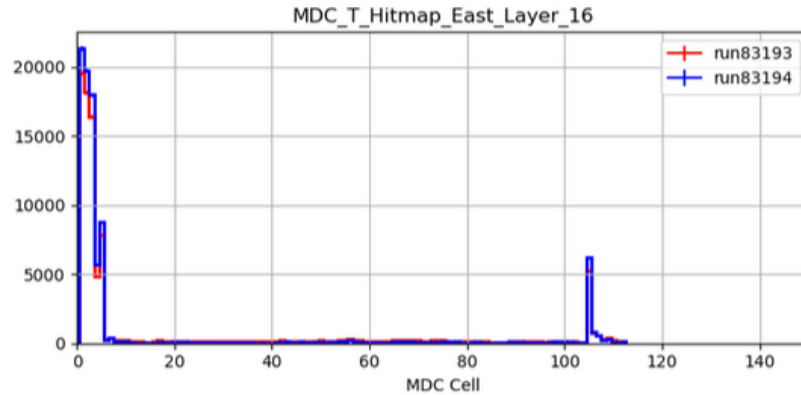
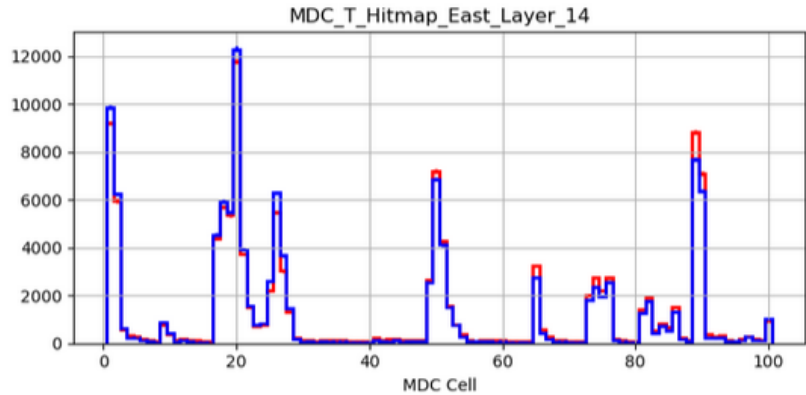
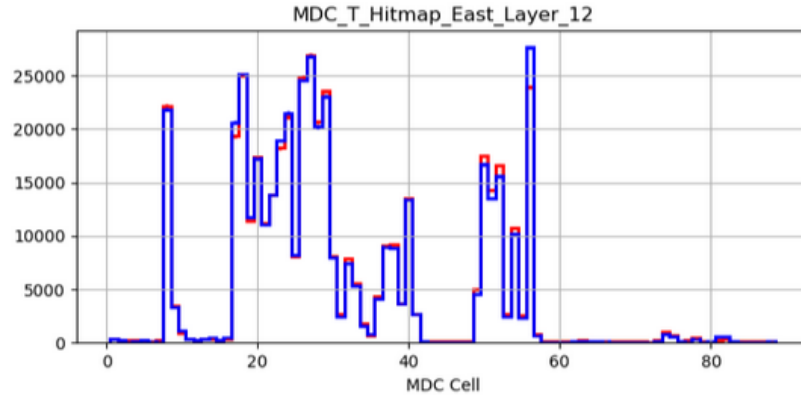
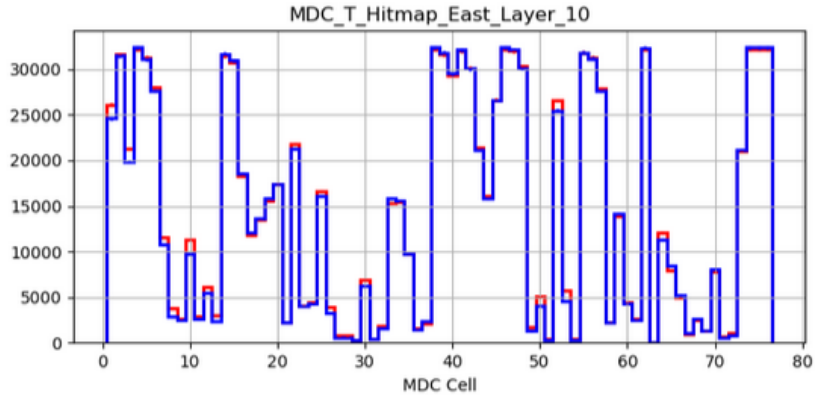
CGEM – MDC noise



Removing the short haul seems to reduce the noise after power on

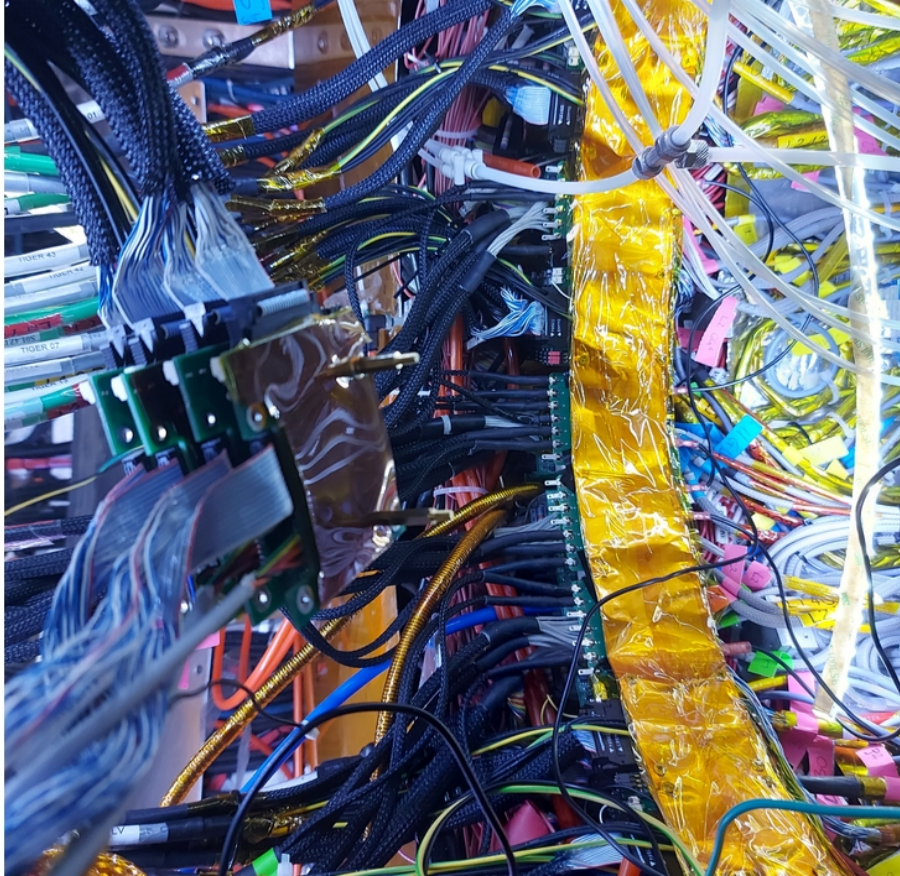
(red with, blue without short haul)

CGEM – MDC noise



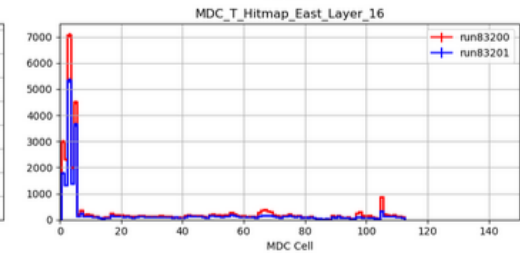
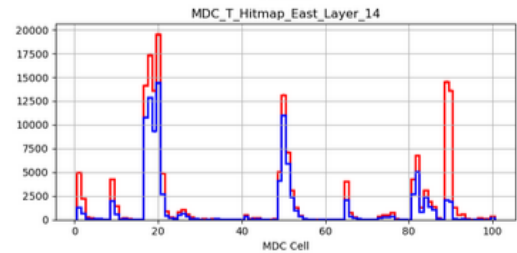
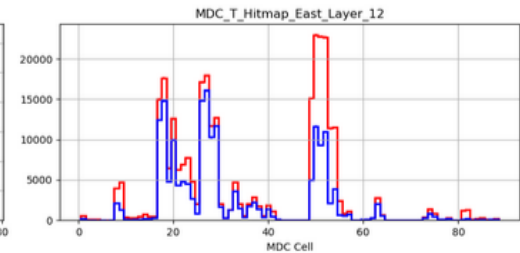
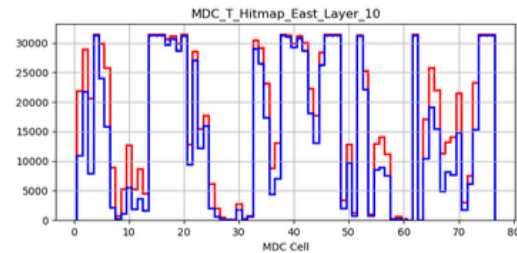
Without data short haul no difference between on and off

CGEM – MDC noise



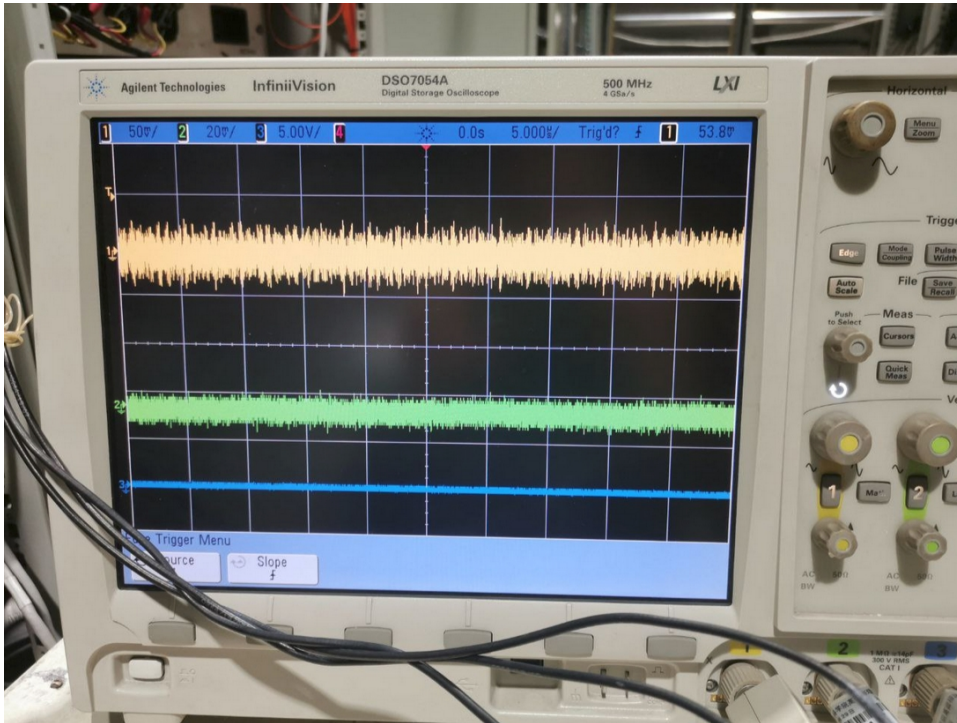
We connected four FEB with four DLVPC outside the cone, also the FEB are outside.

Small increase when we power on



CGEM – MDC noise

Since yesterday (Sunday) at lunch we disconnected everything from the sockets. CGEM and MDC still connected on the same ground. We are checking where this may happen

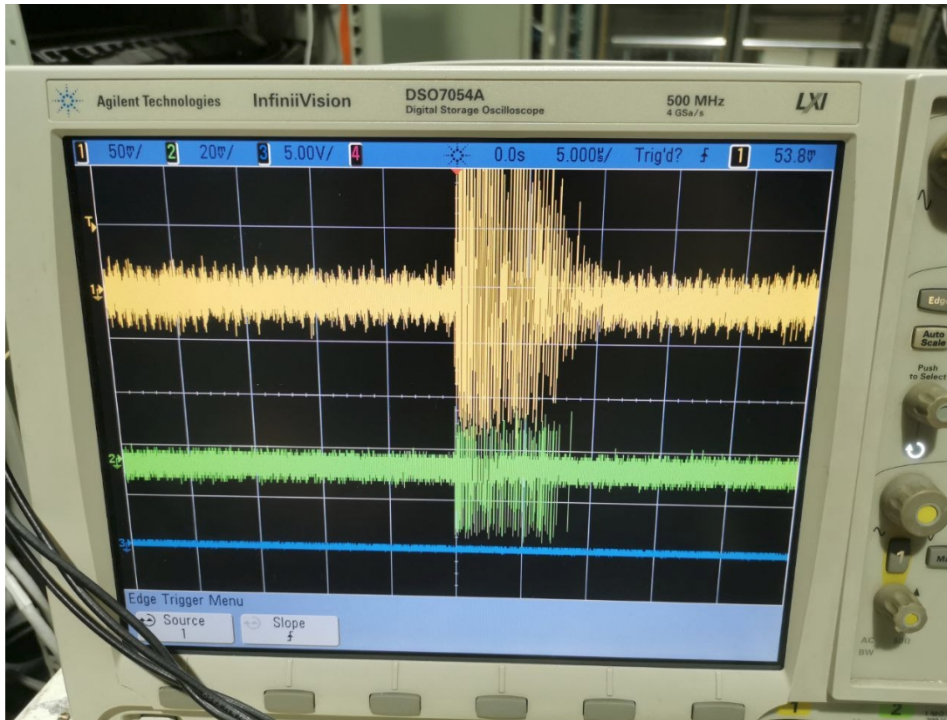


Mingyi and Yunhua connected oscilloscope to a board and we are now able to look at:

- Good channel

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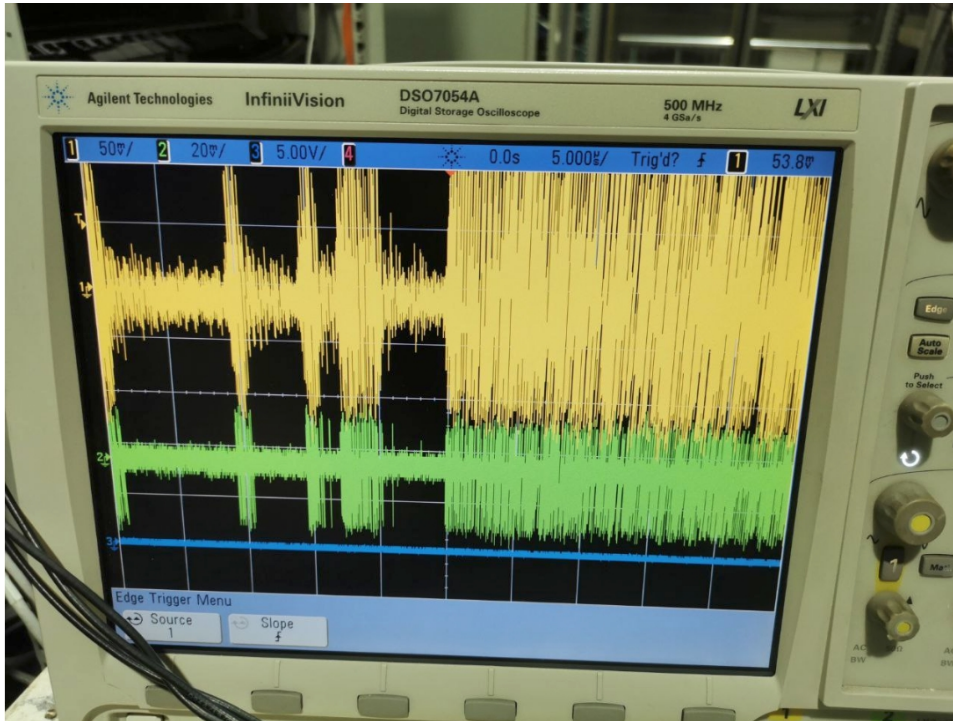
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- Bad channel

Noise seems to be of high amplitude, high frequency, but not continuous (see video)

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