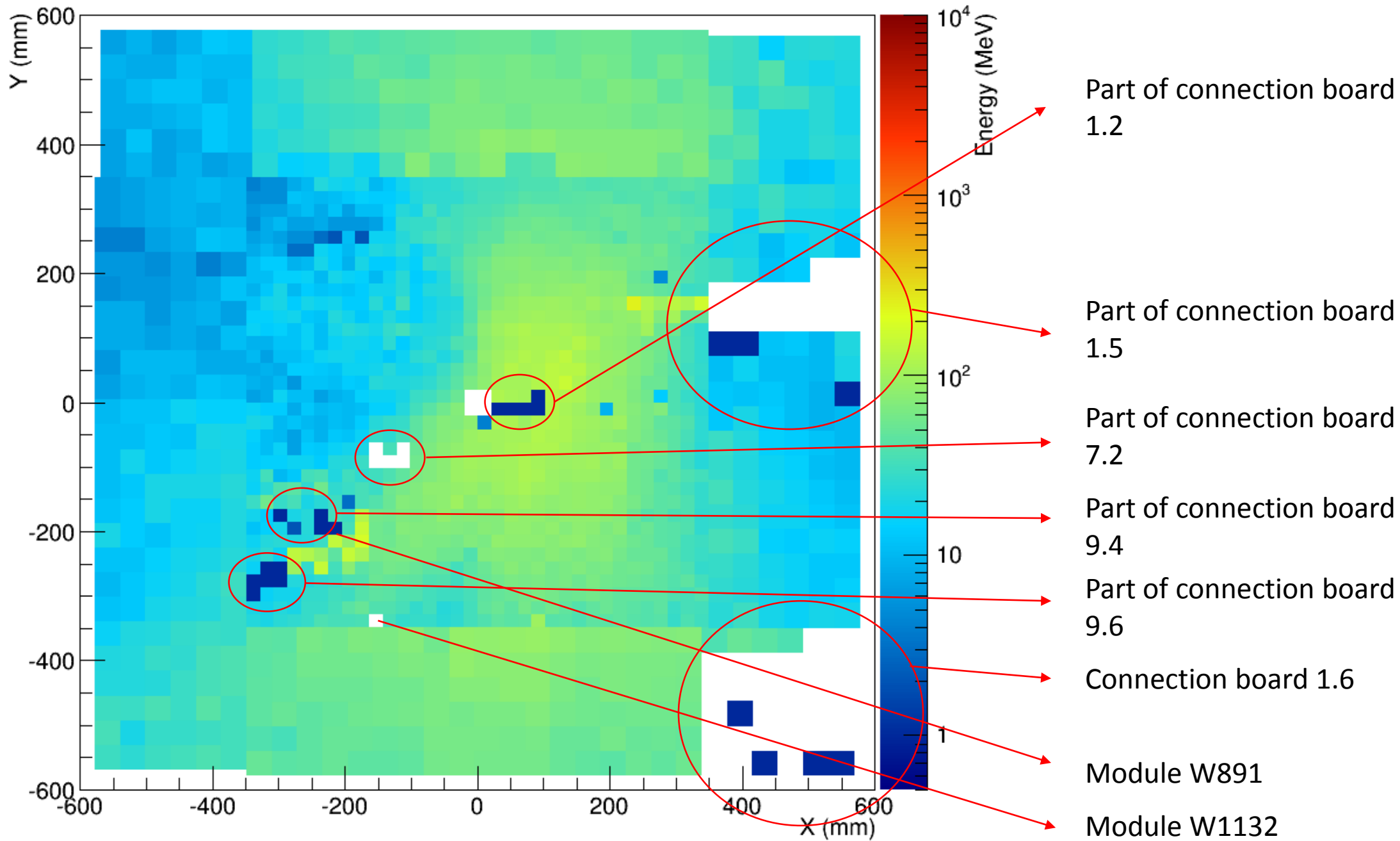


Occupancy for HyCal modules

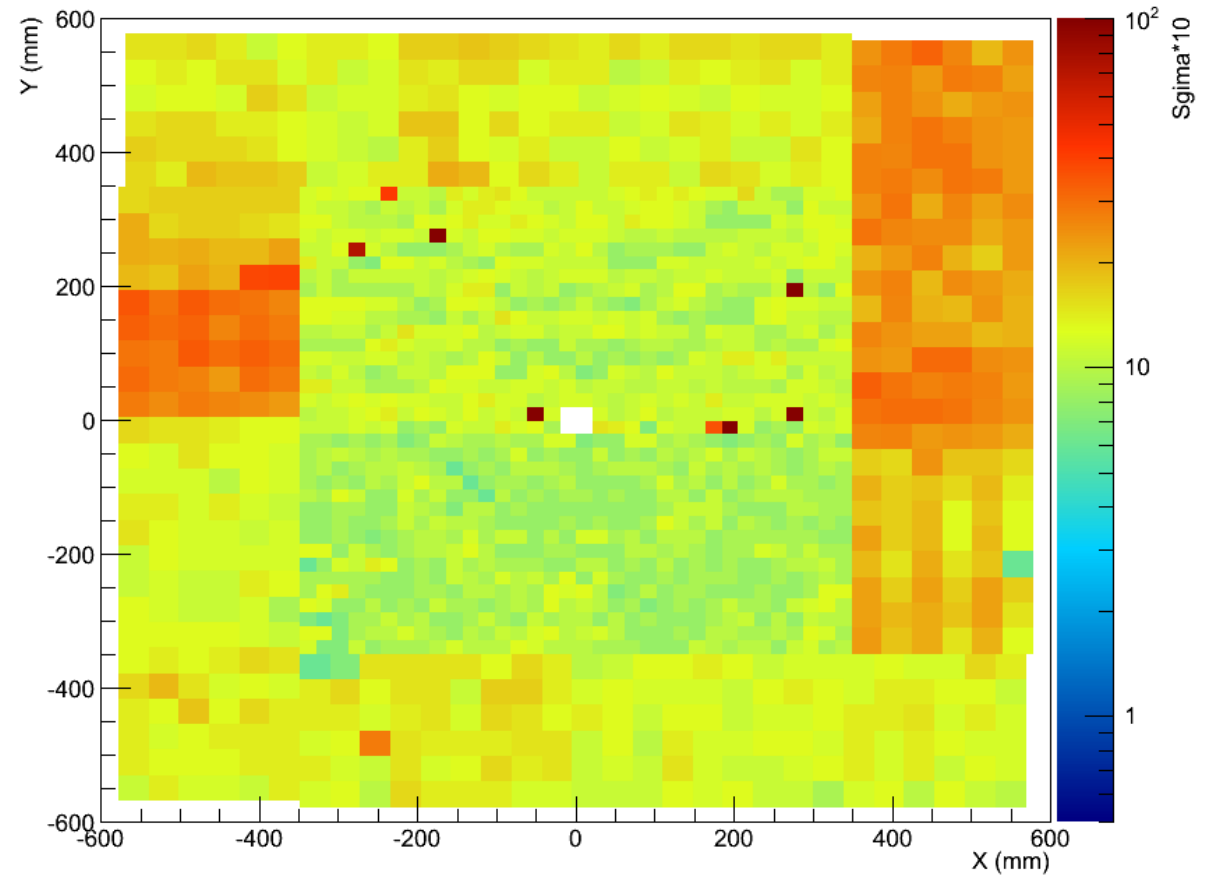
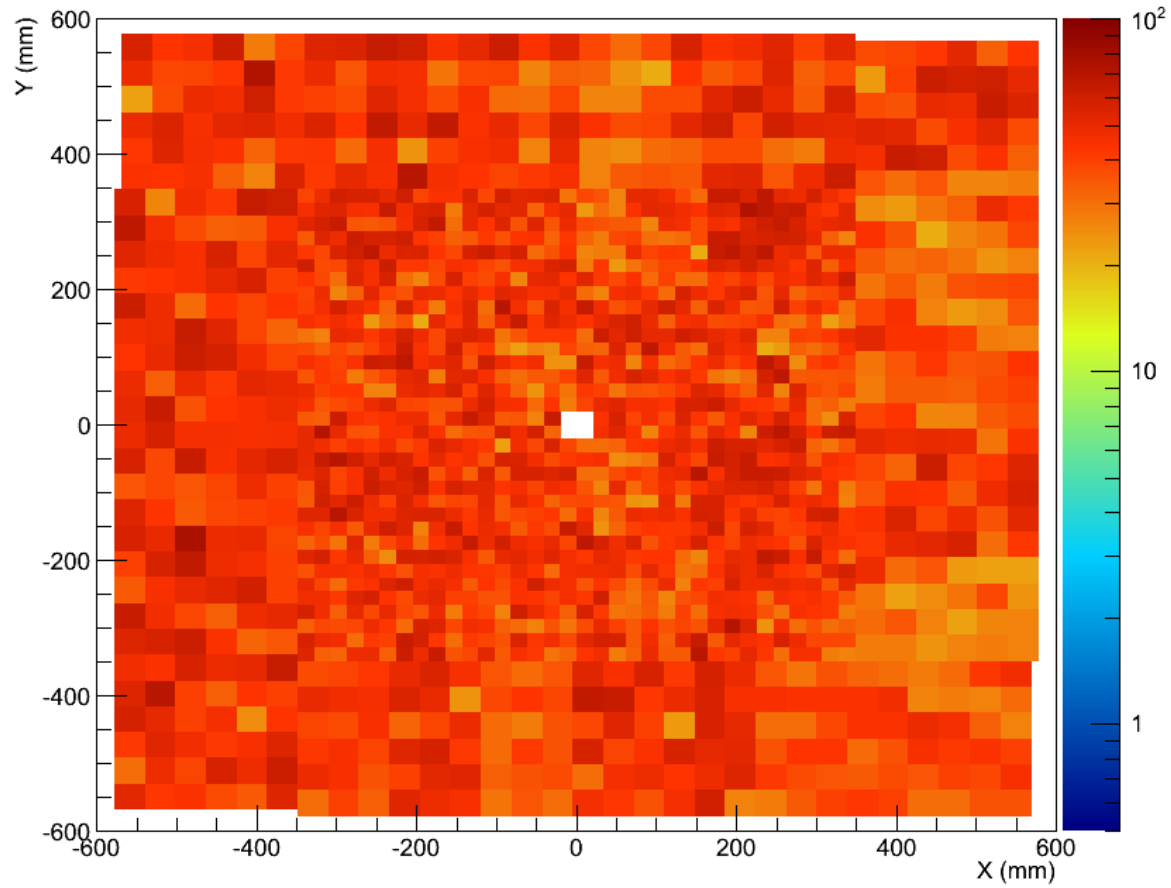
- Cosmic run for 3 days, the plot shows how many times the modules are fired (scaled by 1/100)
- The map indicates the gain for each module
 - Less times of fire -> lower gain
- Dark blue (few times of fire) or whit (nothing) indicates problem with the channels
 - Loose connection
 - Gain is too low
 - Bad channel (hardly because every channel was checked by LMS)



More results

- We pushed the connection boards firmly on Thursday, will start to use strings to secure the connections on Friday
- After this, we took a new data set of pedestal and LMS signals

Pedestal map

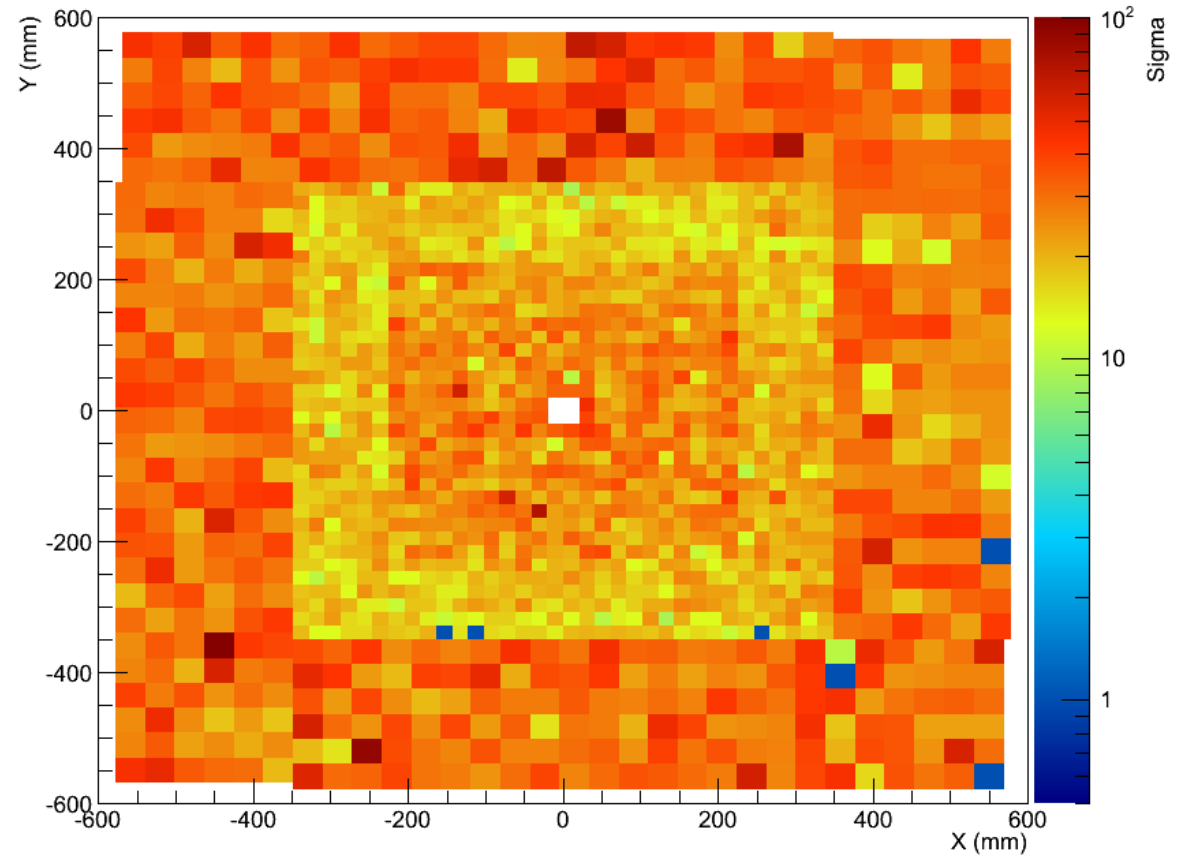
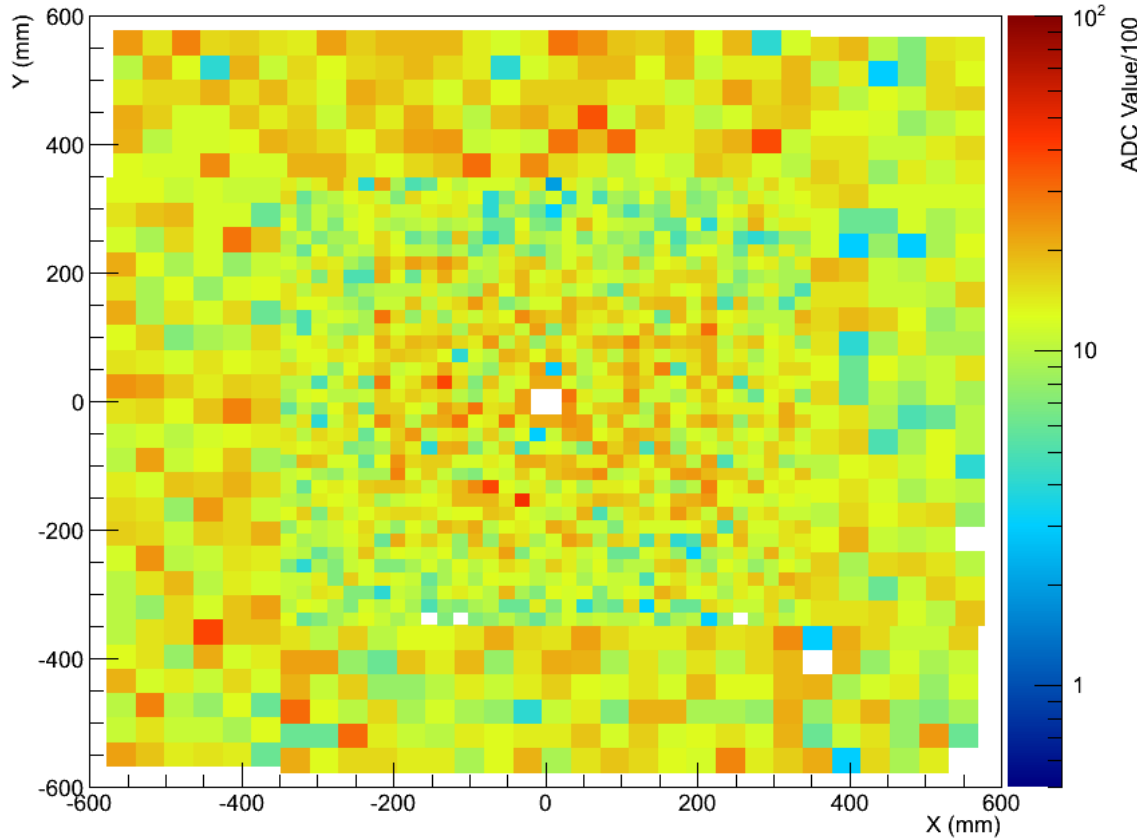


Pedestal map

- Mean value of pedestal varies from 300 to 800
- Sigma of pedestal is more important, typically it is $0.8 \sim 1.5$, some of them can be $2 \sim 3$
 - 7 modules have a very large sigma $6 \sim 12$, which are bad

LMS signal map

- The map shows ADC mean value with LMS signal – pedestal mean value



LMS signal map

- 6 modules have no LMS signal
 - G900 and W1152 are due to HV problem
 - It is most likely the connection problem for the others, because we saw LMS signal when check them channel by channel

New occupancy of cosmic run

- W1152 seems recovered during the cosmic run
- A few modules has LMS signal, but the occupancy is low
 - Might indicates gain problem
 - Or lost connection during the run
- We will start to secure the connection this afternoon

