



MBHA001 – Update on simulations

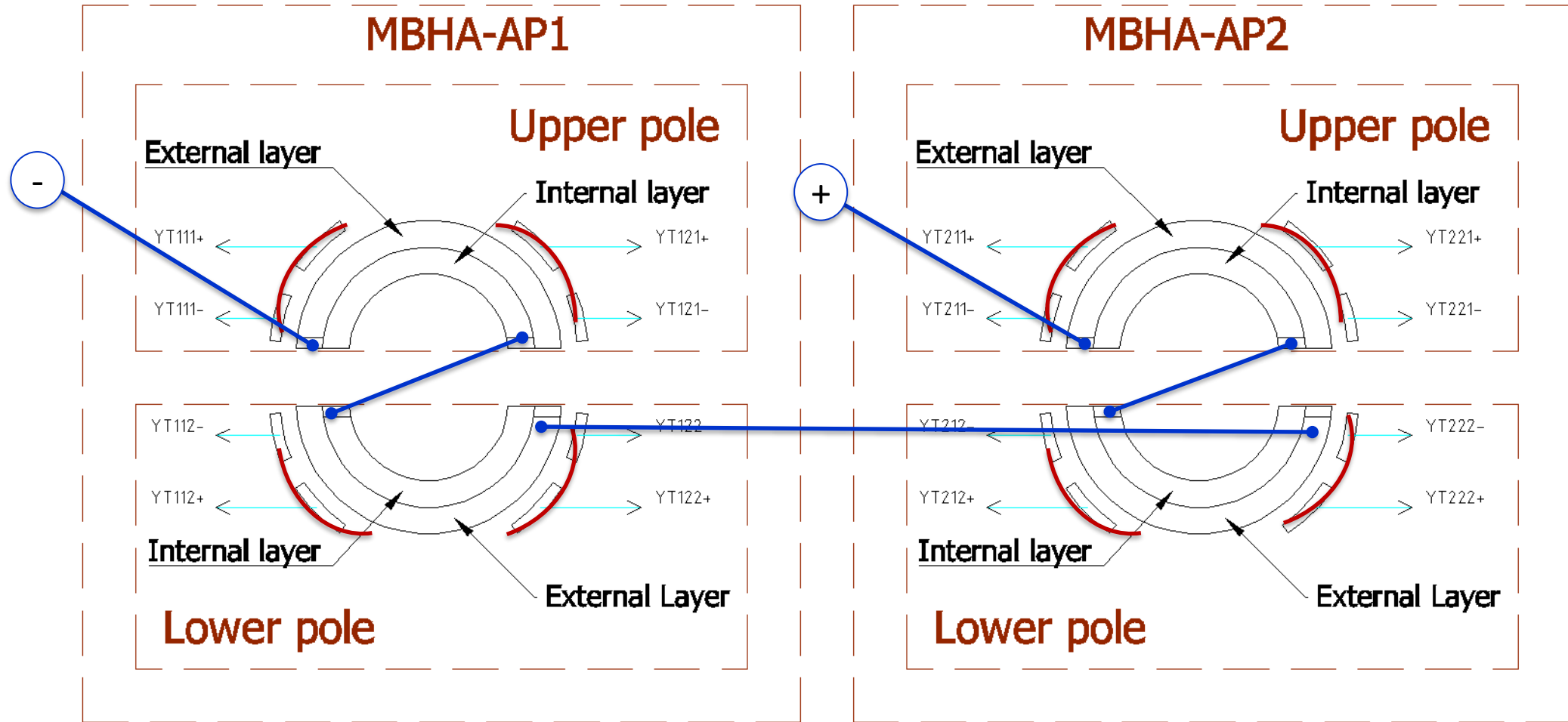
E. Ravaioli (CERN) 

Thanks to J. Ludwin, M. Bednarek, F. Mangiarotti, H. Prin, A. Verweij and other colleagues involved (CERN)



13 March 2020

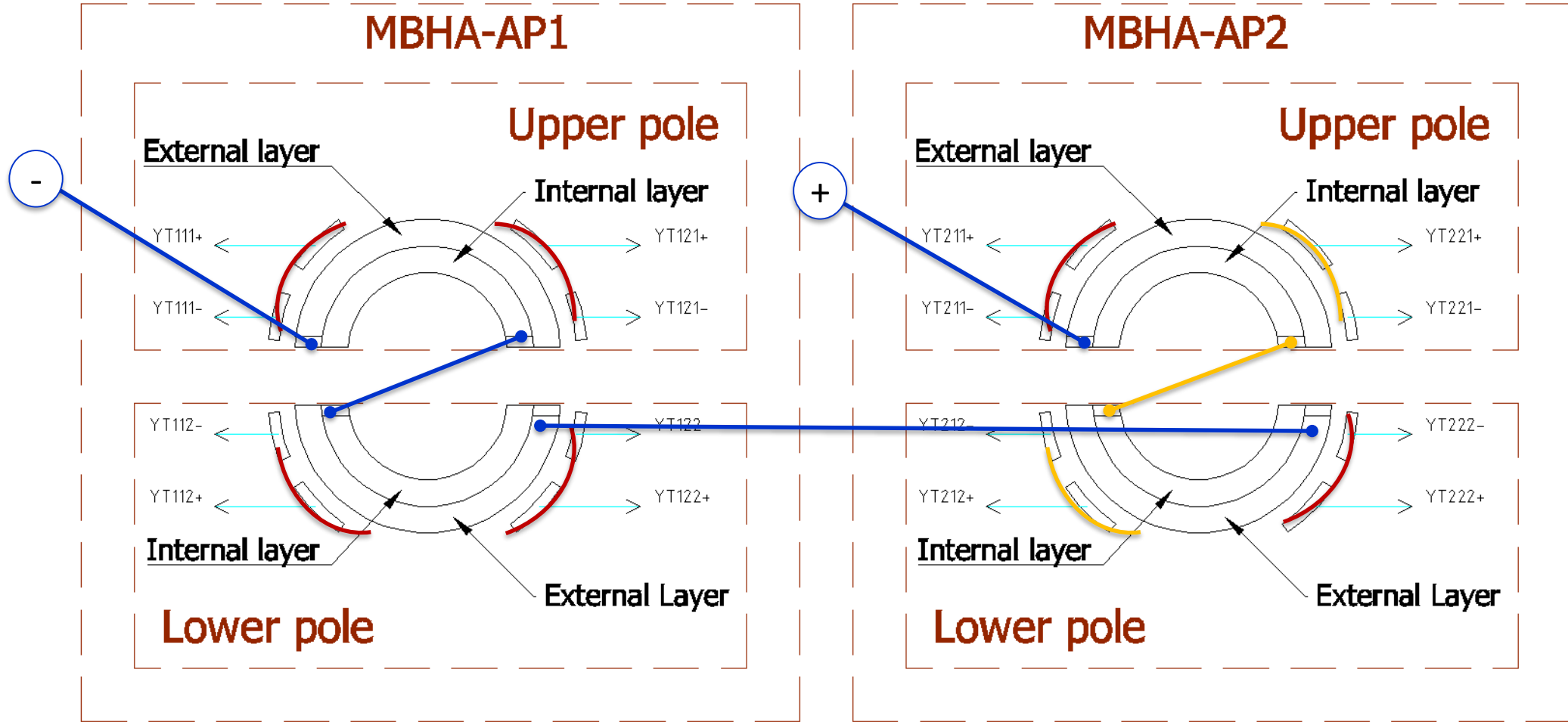
MBHA-001 – Splices, Busbars, QH connections



Looking from the lead end side

Courtesy of H. Prin

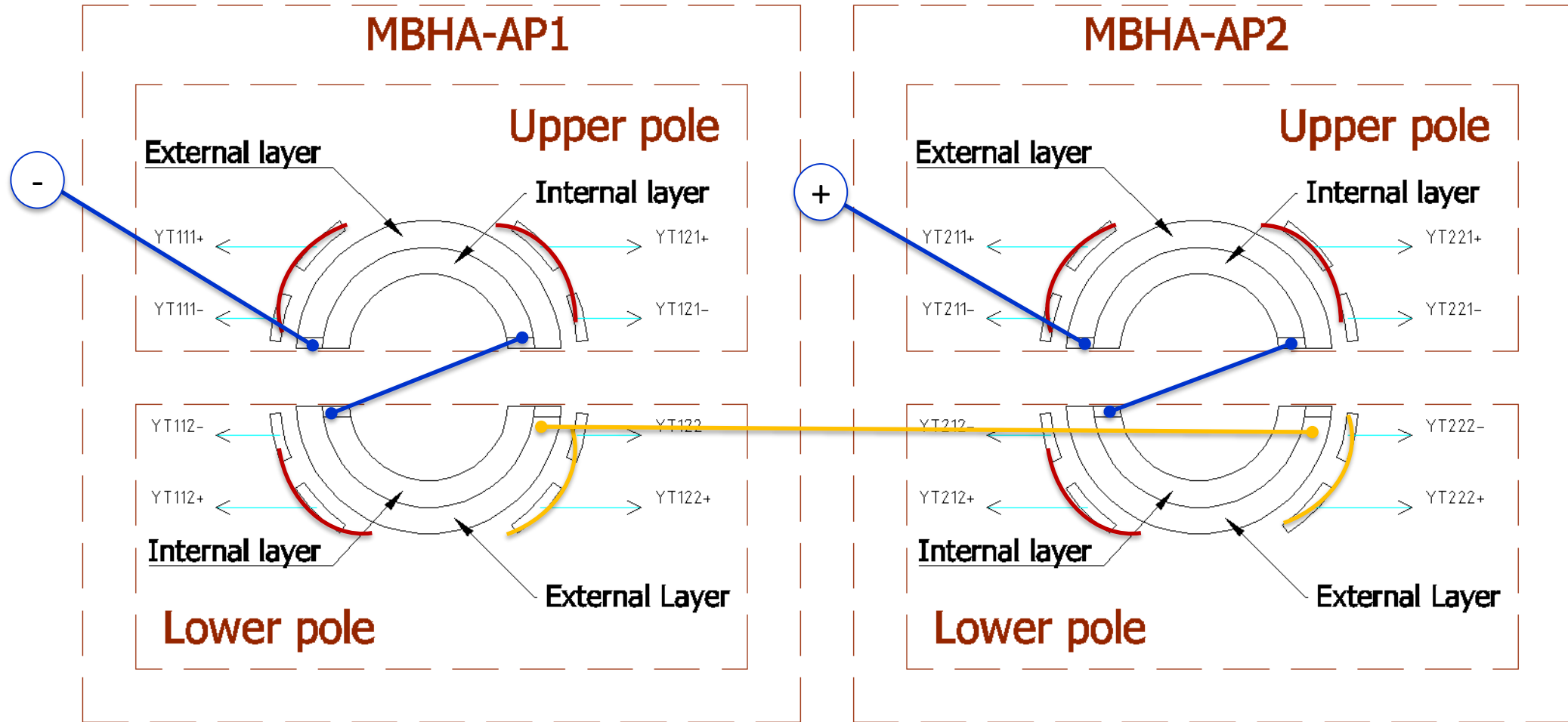
Proposed test: Delay QH acting on conductor closest to D2 splice



Looking from the lead end side

Courtesy of H. Prin

Proposed test: Delay QH acting on conductor closest to D1-D2 splice



Looking from the lead end side

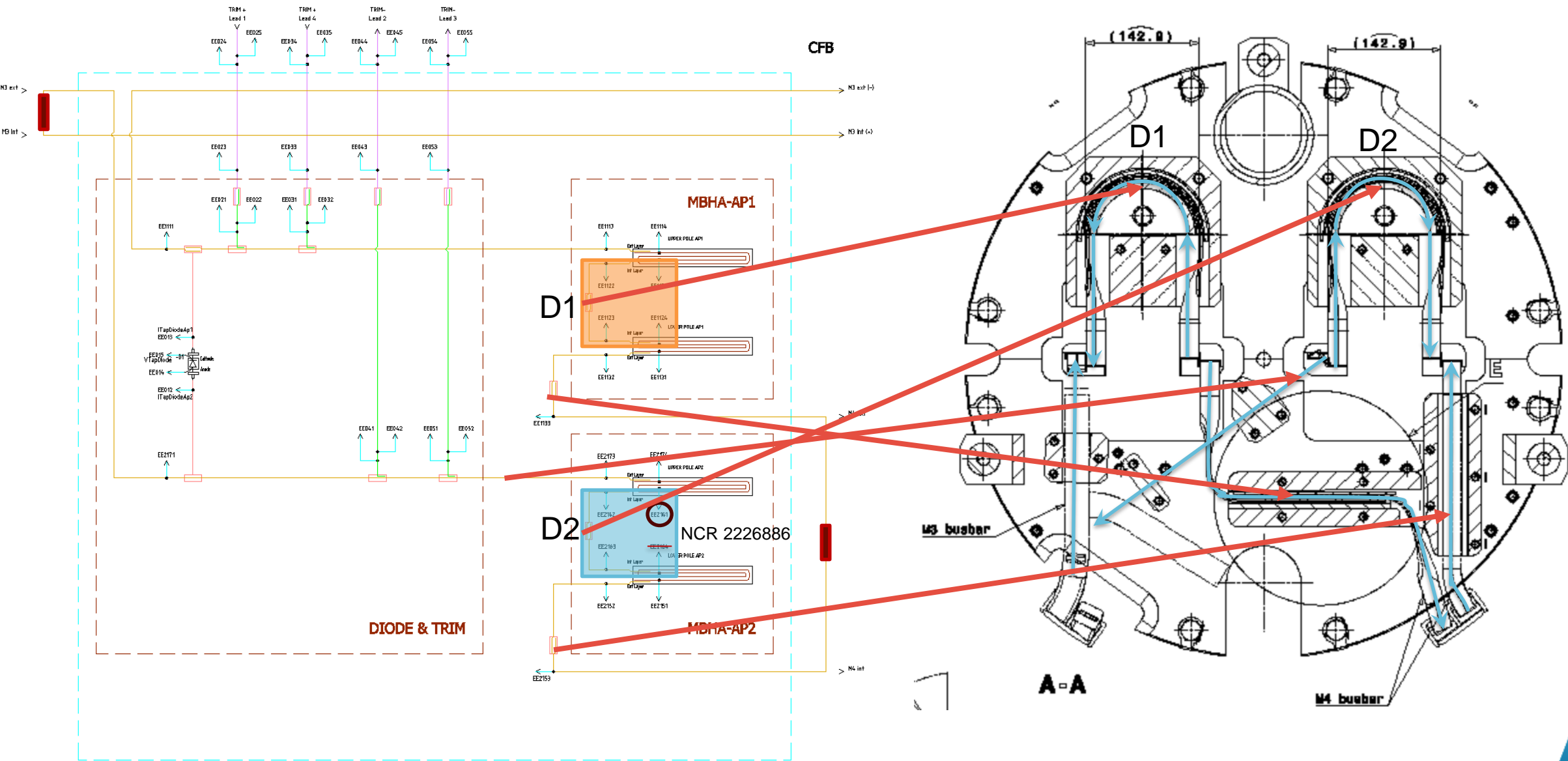
Courtesy of H. Prin

A few observations

- The Cold Diode busbar signals are completely silent during the transients: no inductive coupling, no noise
- The splice signals are silent during the transients, with isolated spikes (might be due to crosstalk)
 - In a few past meetings, we said there were spikes at the same time as the coil spikes; this is not true for the channels measuring individual splice sections (which should be more precise)

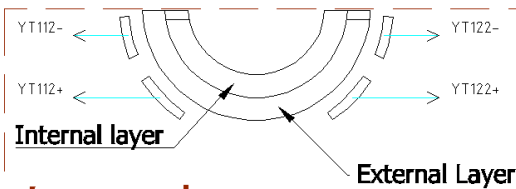
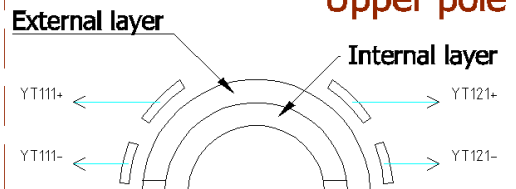
Annex

MBHAR cold test configuration



MBHA-AP1

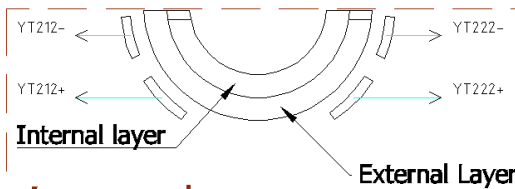
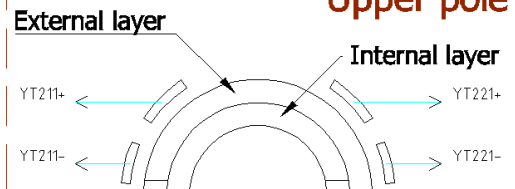
Upper pole



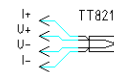
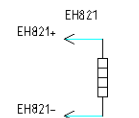
Lower pole

MBHA-AP2

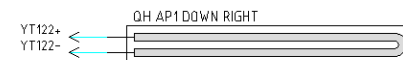
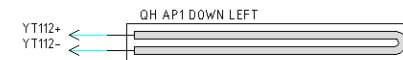
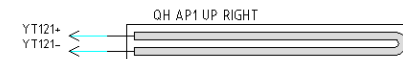
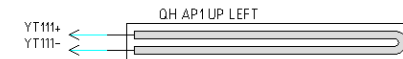
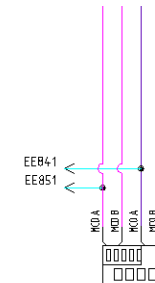
Upper pole



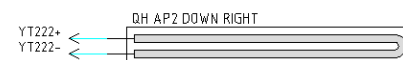
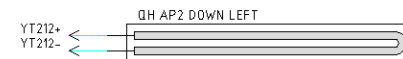
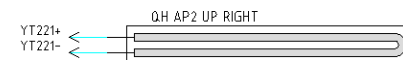
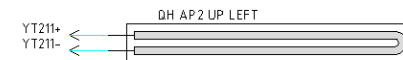
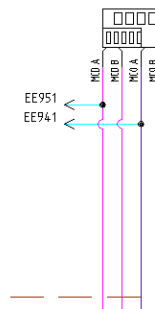
Lower pole



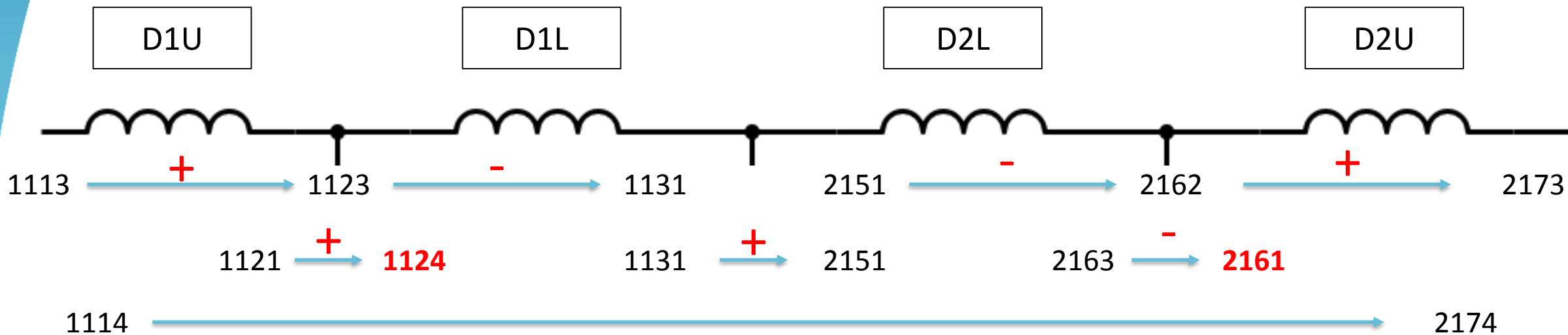
MBHA-AP1



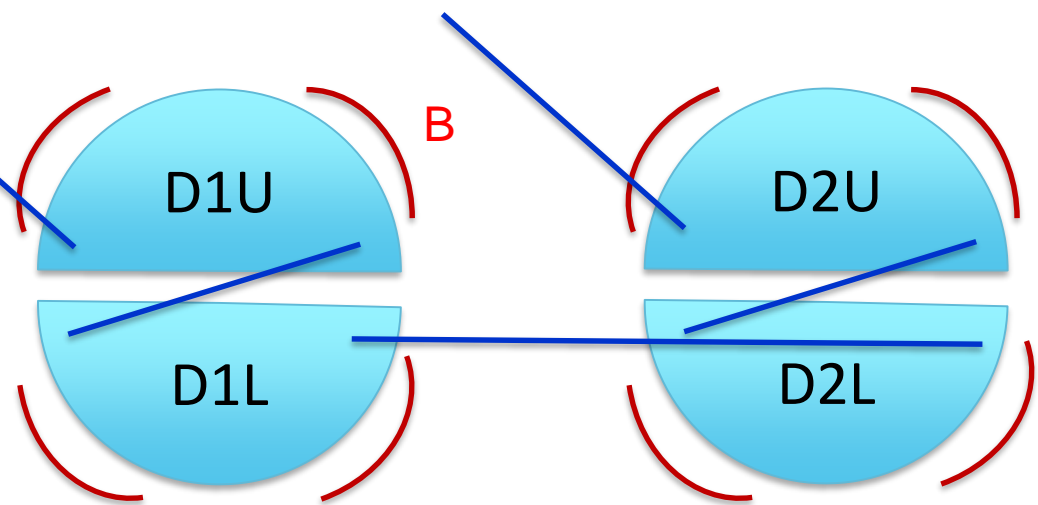
MBHA-AP2



Signals on the voltage taps



Looking from the lead end side



What is the QH circuit that is closest to tap **2161**?
A or B?