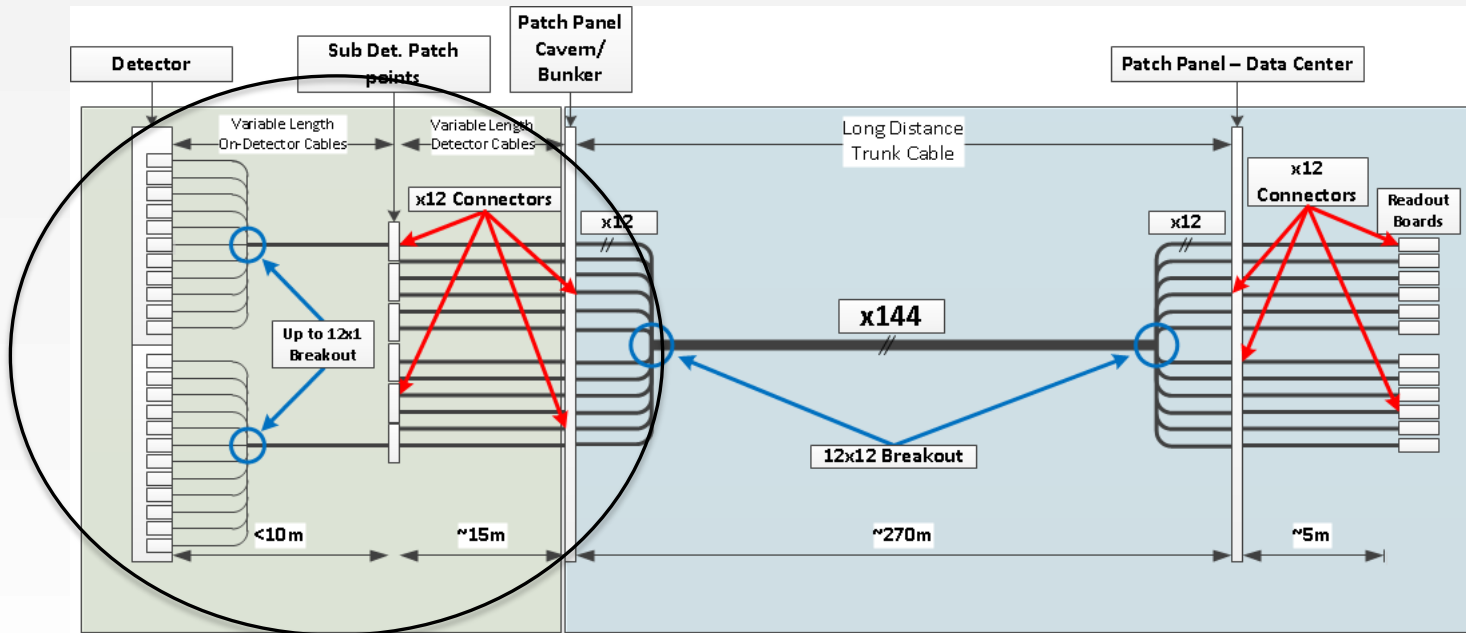


Detector Cabling and Patching

Rainer Schwemmer 9.4.2015

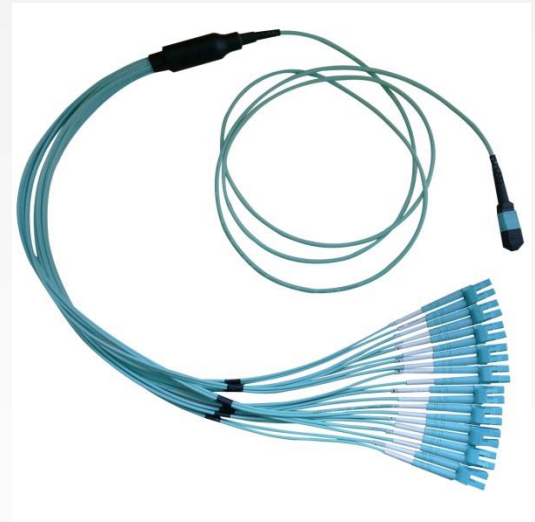
Break Points



- Originally assumed 1 break point in optical budget calculation between detector and Patch Panel in Cavern
- No additional breaks foreseen on read-out board side
- Is this assumption still correct?
- If not, what is the proper number?

On Detector Cabling

- Two options for LC → MPO conversion
- Break-out cable
 - +1 break point
 - Direct connection to Cavern patch panel or additional MPO patch
 - Special requests like staggered lengths for the individual strands are usually not a problem
- LC → MPO cassette
 - **+2 break points !**
 - Use LC patch cords to go from FE to cassette
 - MPO patch from cassette to Cavern patch panel
 - The additional break point increases the risk of Bit Errors on the link → suggest to use if only absolutely necessary
- Spares
 - What kind of contingencies do you plan on your sub detector?
 - How are they going to be connected?



Purchasing

- CERN is currently negotiating a new frame contract for buying optical cables
- We have currently the possibility of suggesting specs for fibers that can be bought within this contract
 - Can use this to include your on-detector cable specs
- The CERN frame contract can be used as a baseline for now
 - Allows to see what is technically possible
 - Allows to get an estimate for prices