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SI LAB
Silizium Labor Bonn

Status of DATCON

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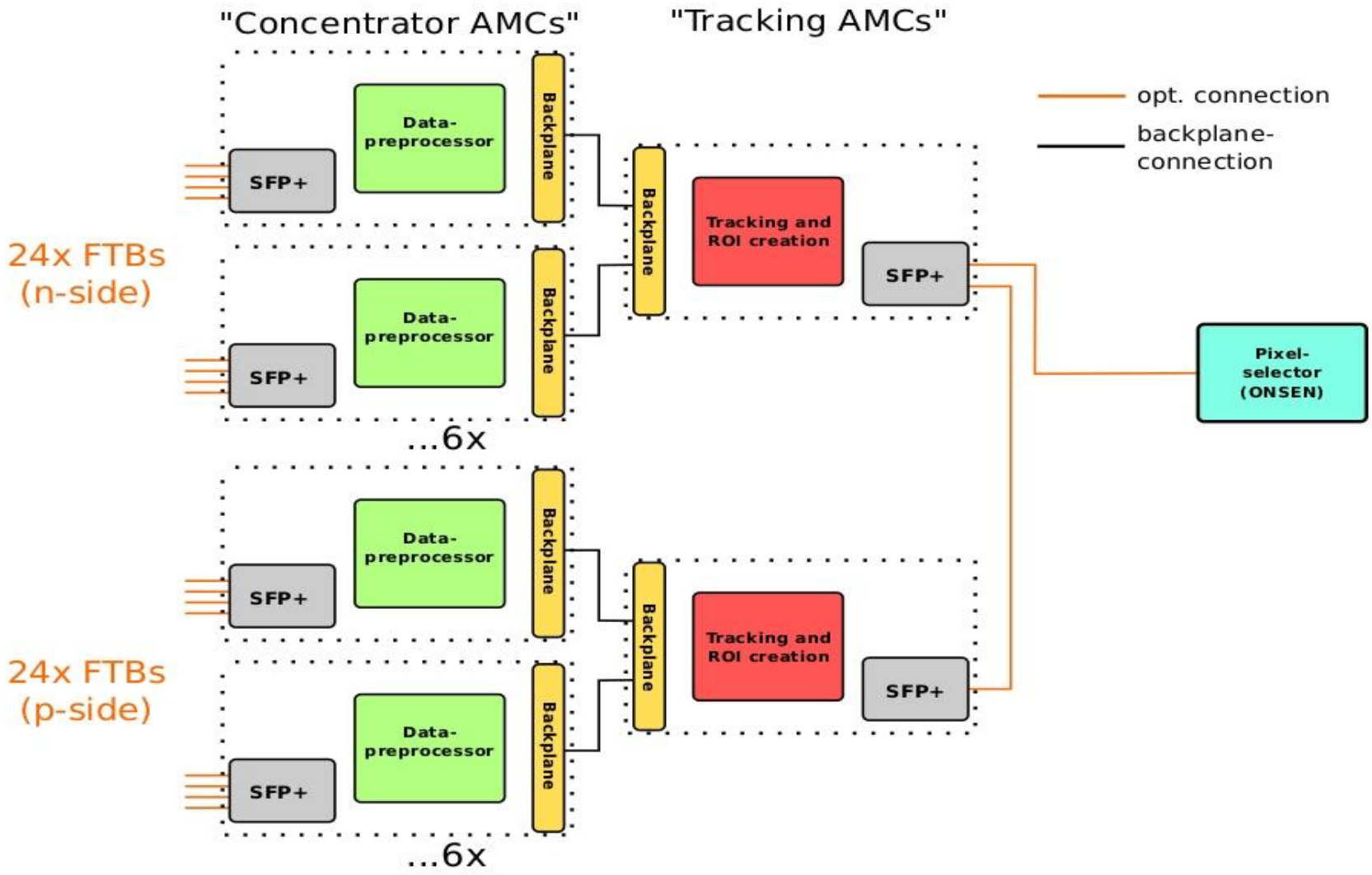
Connection topology of the DATCON



New backplane design

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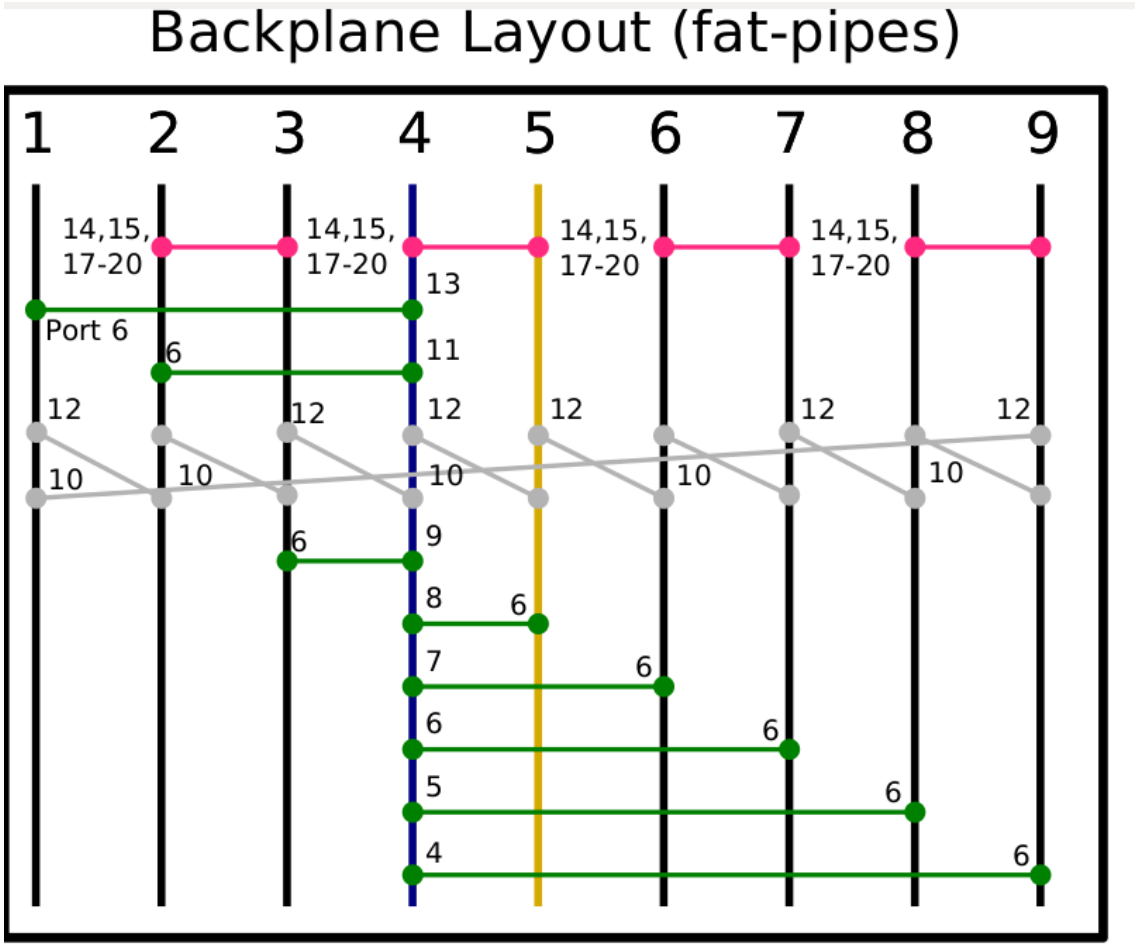
Concentrator AMCs (AMCv3) | Tracking AMC (DHHC) | SFP ext. card

opt. fibre

DATCON backplane

optional (ONSEN) Daisy-Chain

SFP extension card



New backplane design

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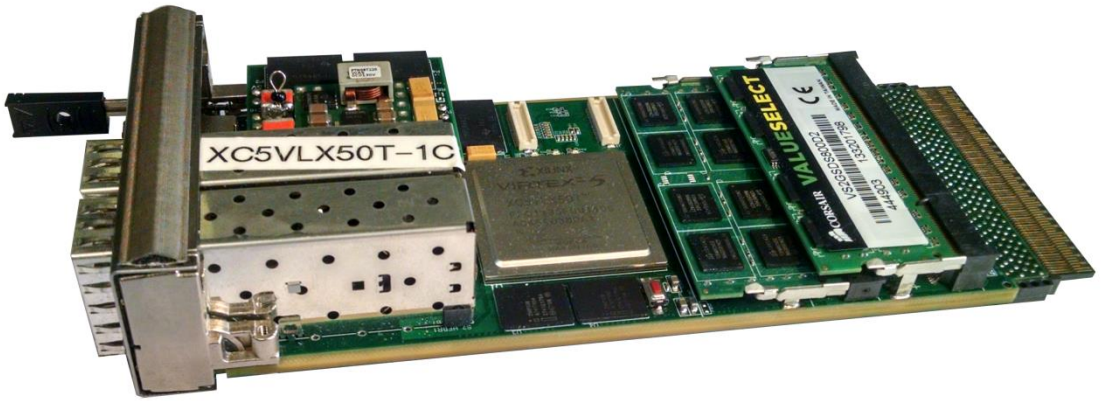
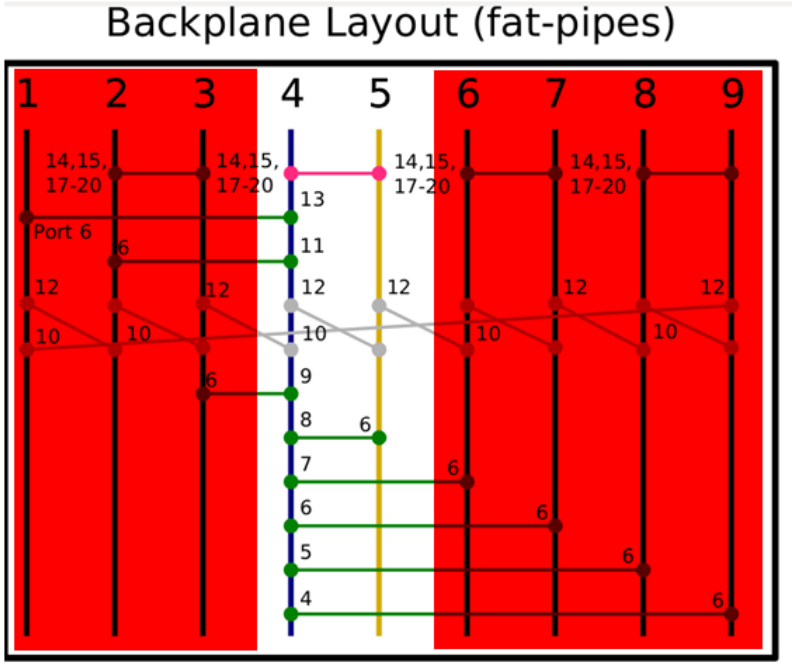
- Custom backplane produced by Pentair
- MTCA standard
- Expected delivery : End of 2015
- 2 for DATCON, 2 for ONSEN

  1 for backup
- JTAG connection in development

Concentrator boards

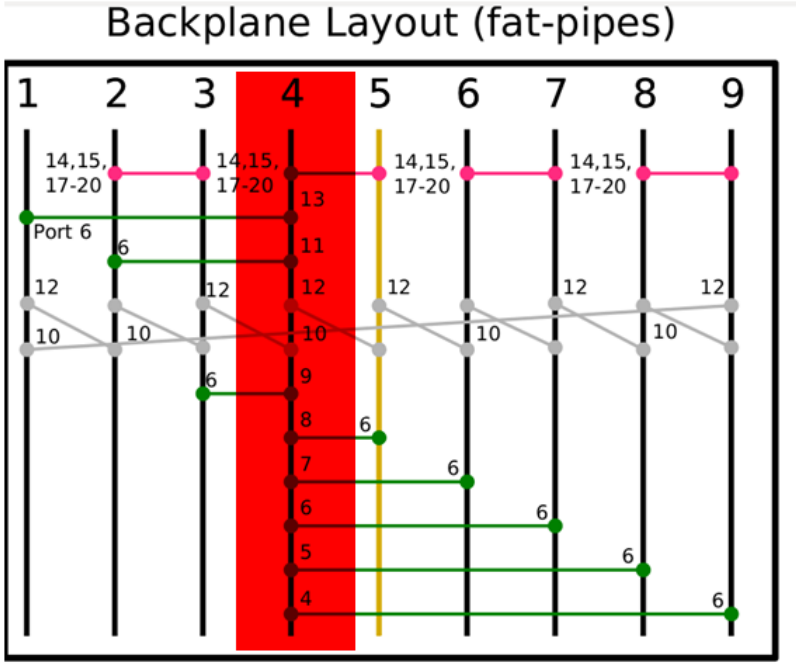
- AMC rev 3.1 designed by IHEP
- Used as concentrator units
- Tested, green light for production given at Seeon
- 15 units to be produced





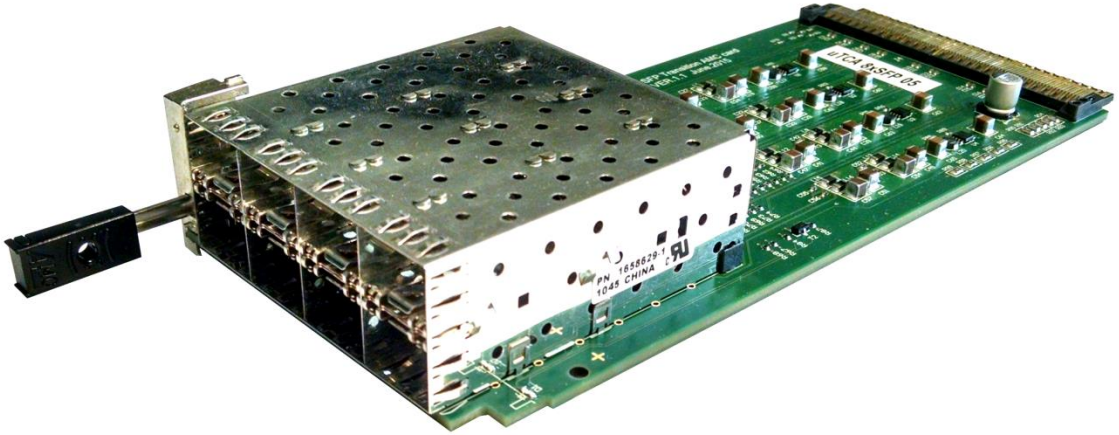
Tracking boards

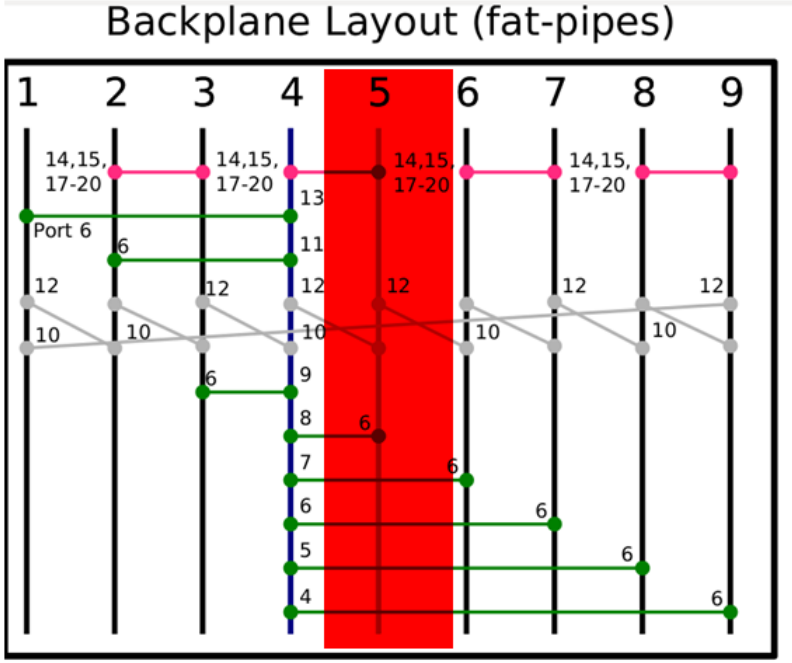
- DHE for tracking and ROI generation
- New DHE with more powerful FPGA
- 3 units to be produced



SFP extension card

- **Passive PCB in AMC standard. Developed by Igor**
- **8 SFP+ cages. Connected to DHE over backplane**
- **5 units produced and tested**





VXD test beam April 2016

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- **Use of the latest components**
  - **Chassis with new backplane**
  - **Concentrator unit with AMC v3.1**
  - **Tracking and ROI with DHE.**
  - **New SFP extension boards**

- **New Master student Christian Wessel**
- **Check that tracking is working with the new parts**
- **Tuning of ROI size as a function of track momentum in BASF2 simulation and implementation on FPGAs**

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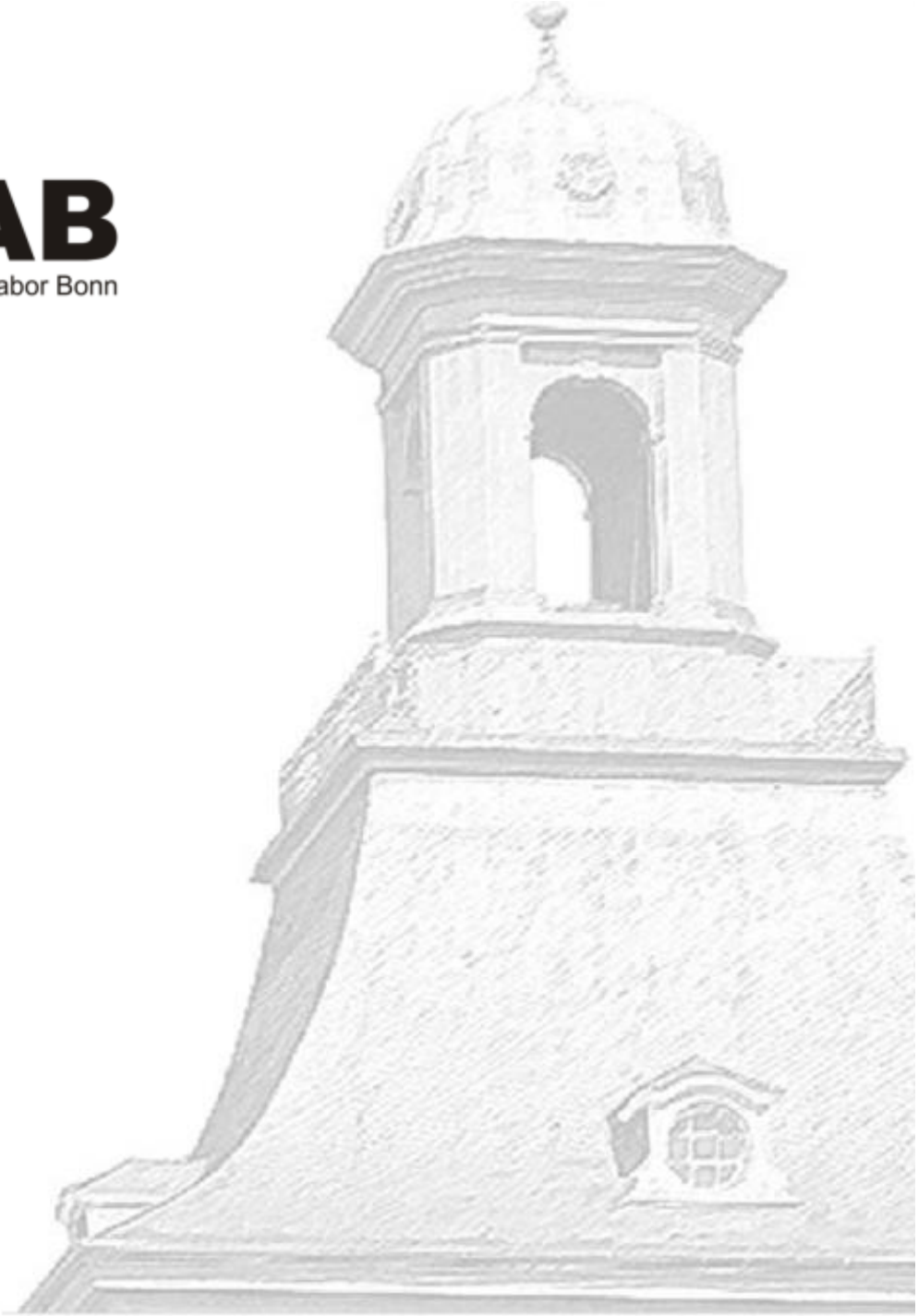

Thank you

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