

DHH RTM Module

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Heinz Maier-Leibnitz





RTM for Copper Connection

RTM for Optical Connection

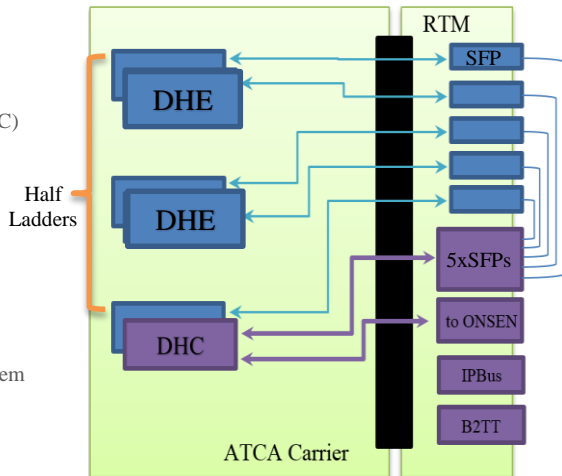
Summary & Outlook

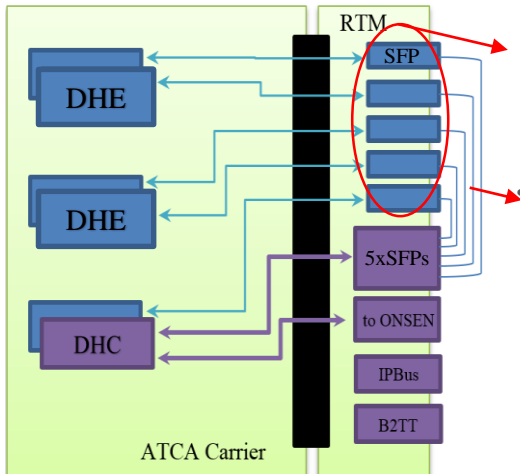
1. ATCA Carrier

- 5x Data DHE
 - 2x Inner Layer
 - 3x Outer Layer
- 1x Data Handling Concentrator (DHC)
- Interfaces connect to the half ladders

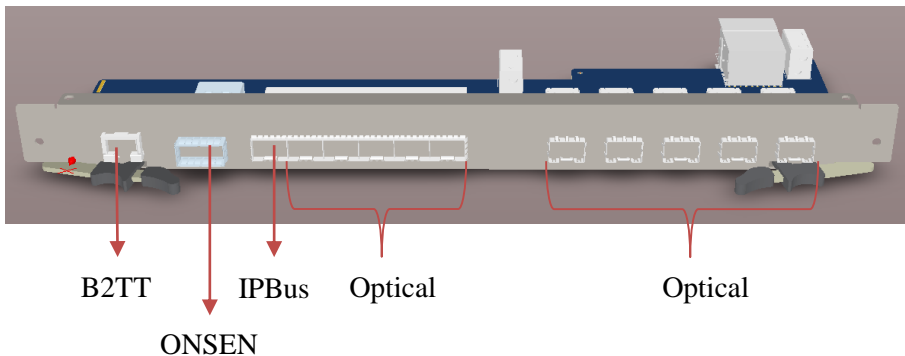
2. Rear Transition Module

- 10x SFP Optical Transceivers (5x to DHEs; 5x to DHC)
- 1x QSFP connects with ONSSEN system
- 1x SFP RJ45 for IPBus control
- 1x RJ45 for B2TT





- Separate voltage supply for each SFP
- Each SFP has common ground with its corresponding DHE
- Isolated between DHE and DHC by the optical connection



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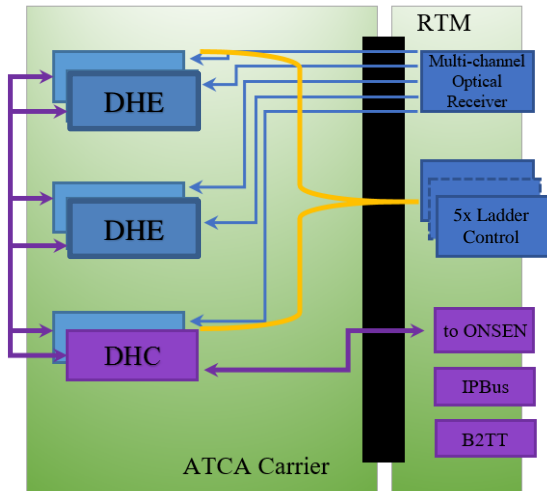
Summary & Outlook

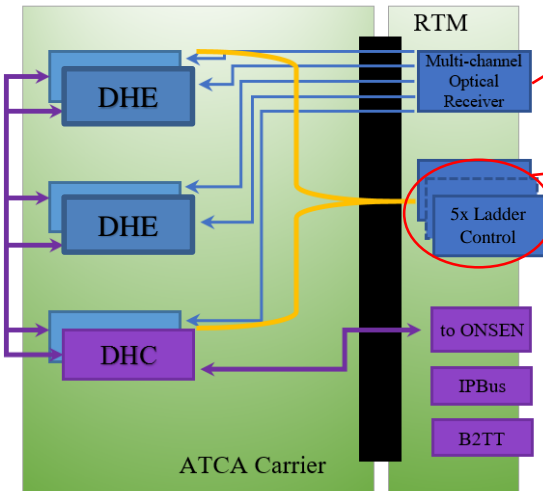
1. ATCA Carrier

- 5x DHH
 - 2x Inner Layer
 - 3x Outer Layer
- 1x Data Handling Concentrator (DHC)
- Connections between DHEs and DHC

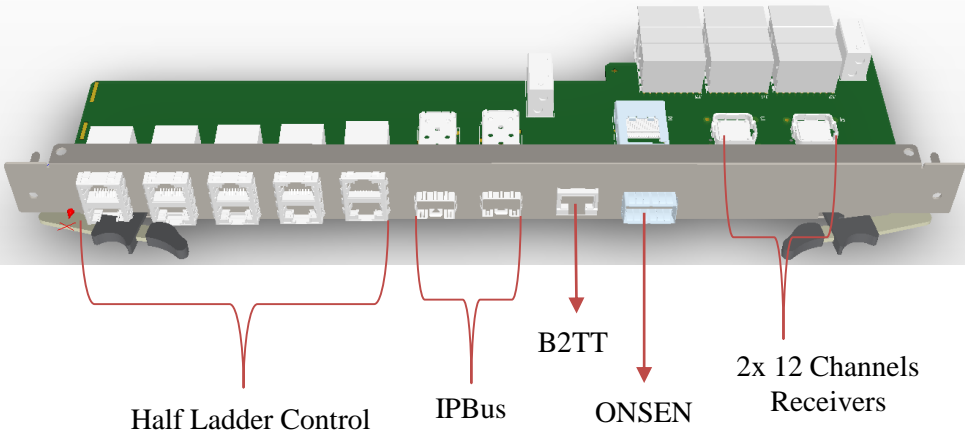
2. Rear Transition Module(RTM)

- 2x 12Channels optical receivers to receive data
- 5x Double height RJ45 connectors for ladder control (JTAG, DHPt Command, DCD current source)
- 1x QSFP connects with ONSFN system
- 2x SFP RJ45 for IPBus control
- 1x RJ45 for B2TT





- Monitoring the signal qualities from the half ladders
- Separate voltage supply for each half ladder control
- Each half ladder control has common ground with its corresponding half ladder
- Galvanic isolation of the signals between DHE and Ladder Control Unit





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RTM for Optical Connection

Summary & Outlook

1. RTM for Copper Connection

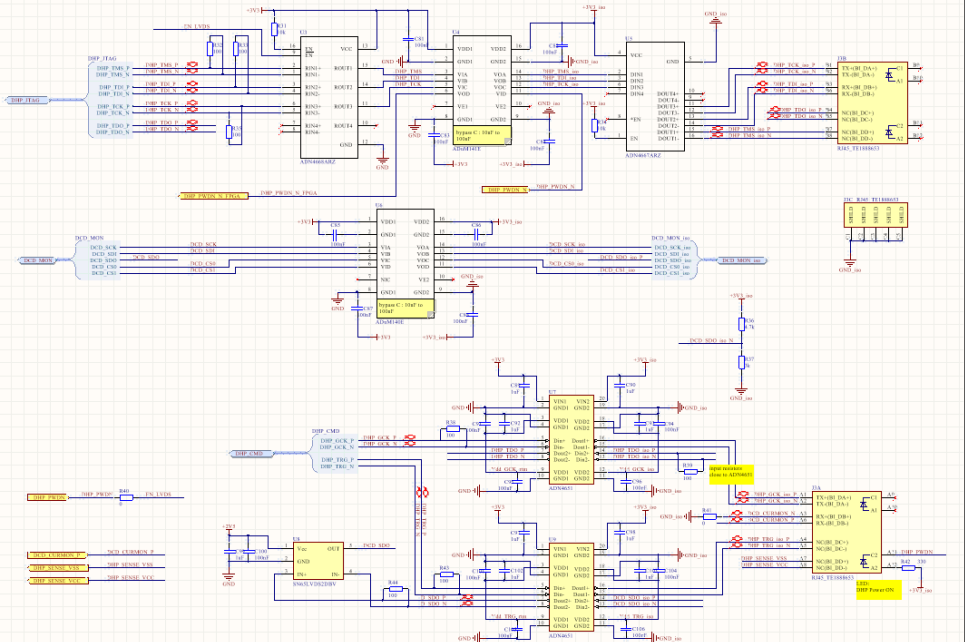
- Schematic Design → Ready
- PCB Layout and Manufacture → End of Jan.2016
- Fully test → End of Feb. 2016

2. RTM for Optical Connection

- Schematic Design → Ready
- PCB Layout and Manufacture → T. B. C.
- Preparing a small test board(one half ladder) for Desy test beam

Thank You for Your Attention!





Title: Reer Transition Module			Electronic Lab	Component
Drawn: DHP_RMS	Author: A4	Revision: 1	31/07/2016	D1: Albert & D2: Tommaso
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