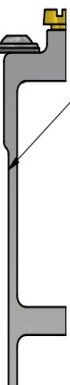


Grounding/Shielding Update

Ground connection

ange



necessary gap to PCB

DATA cable

shield inside
DATA cable

PatchPanel cover

CDC inner flange

VXD flange

PXD baseline for grounding

9.10.2017

PXD main gound (1 x 4 mm)

outside VXD area is possible

complet covered
Only the lasercut surface is open

100-200 Ohm / halfshell is enough

Kapton

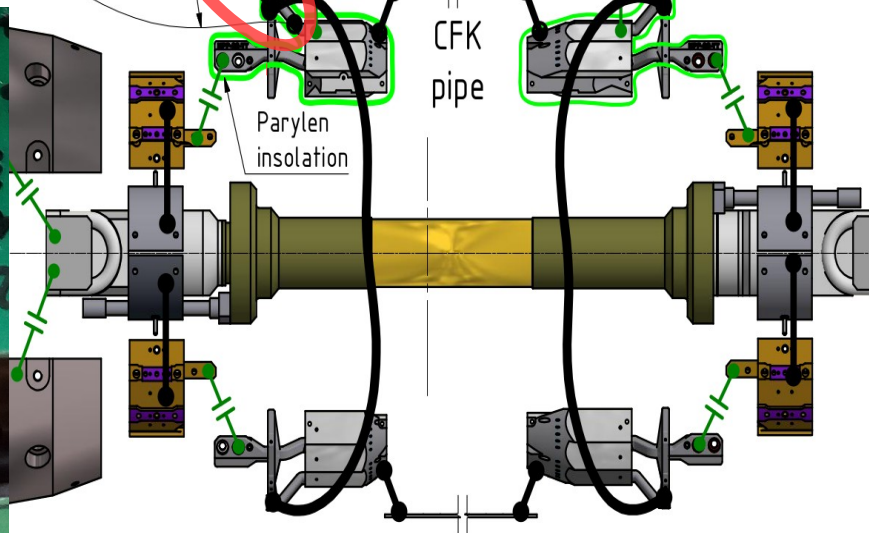
up to 1mm
shorter is better

CFK
pipe

Parylen
insolation

bwd side

fwd side



this parts is covered with insulation


ange


9.10.2017



Measure connections:
AGND – VXD flange
DGND – VXD flange
→ 0.5 Ohms for BWD modules

DHP-sense → VXD flange:
FWD: 31 Ohms
IB: 38 Ohms
OB: 60 Ohms

 this parts is covered with insulation

 ground connection between this parts

Grounding/Shielding Update Patch Panels

- ▼ PXD WebHome
 - Common PXD/SVD Systems
 - Documentation for Lab Test Setups
 - ▼ Fact Sheets of PXD Components
 - PXD Sensor Description
 - **PXD ASICs**
 - PXD Modules and Ladders
 - PXD Data Handling System (DHH)
 - PXD ONSEN and DATCON
 - PXD Slow Control
 - PXD DQM
 - PXD Power Supplies and Services
 - **PXD System Grounding**
 - PXD Mechanics and Cooling Description

Pages / ... / Fact Sheets of PXD Components

PXD System Grounding

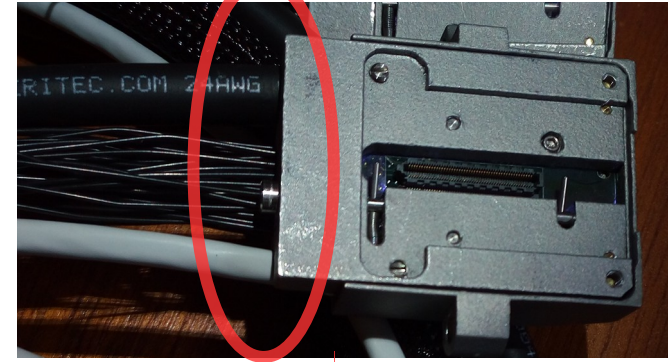
Ladislav Andricek posted on 20. Nov. 2016 14:51h - last edited by Ladislav Andricek on 12. Oct. 2017 03:12h

Grounding Documentation

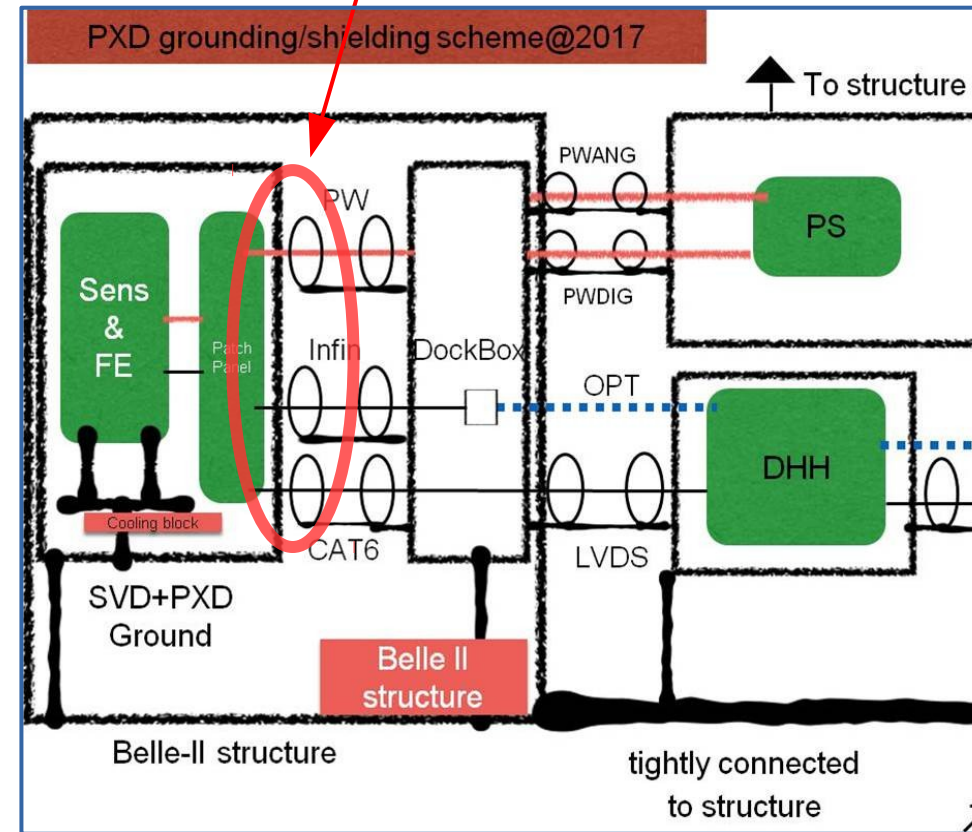
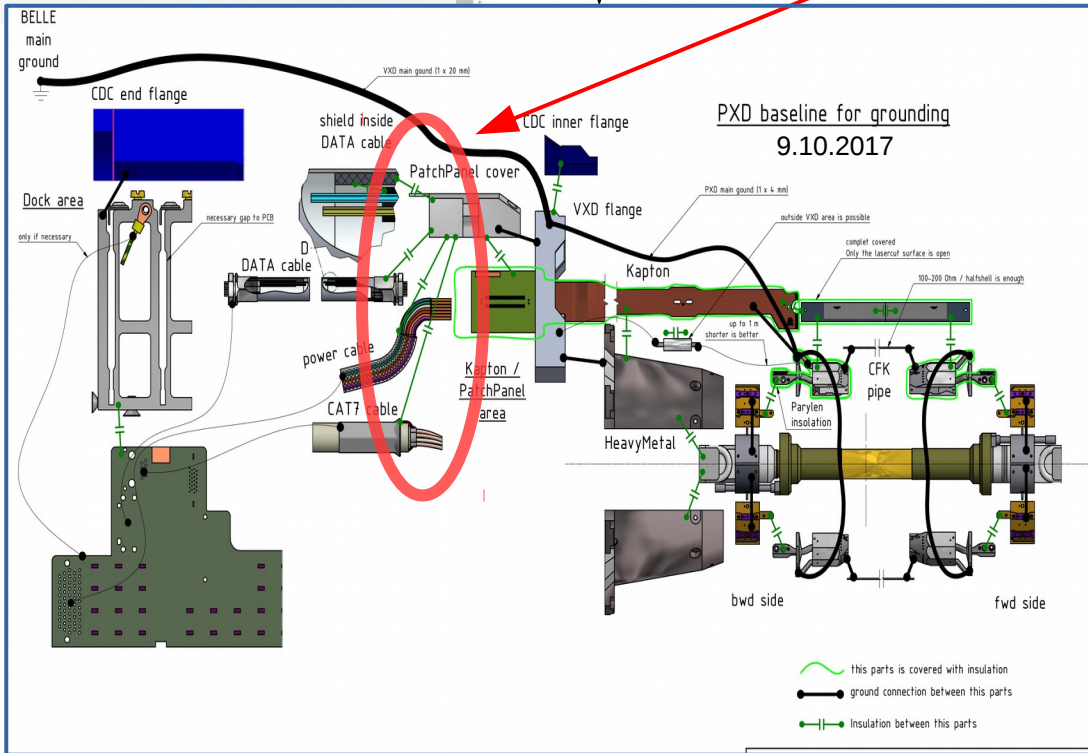
- EMC Issues for DEPFET - ITA 2100_i110256_V2 (pdf)
- PXD Grounding Presentation VF2 (pdf)
- Grounding/Shielding Document (Fernando Arteché, Nov. 2016)
- Updated Grounding Scheme after Services Meeting February 2017
- Grounding Drawing after Meeting February 2017



Write a comment...



no connection between
cable shields and patch
panel housing



Grounding/Shielding Update

Patch Panels

https://confluence.desy.de/display/BI/PXD+Power+Supplies+and+Services

Confluence Spaces People Create ...

- Fact Sheets of PXD Components
 - PXD Sensor Description
 - PXD ASICs
 - PXD Modules and Ladders
 - PXD Data Handling System (DHH)
 - PXD ONSEN and DATCON
 - PXD Slow Control**
 - PXD DQM
- PXD Power Supplies and Services**
 - PXD Cable List

Pages / ... / Fact Sheets of PXD Components

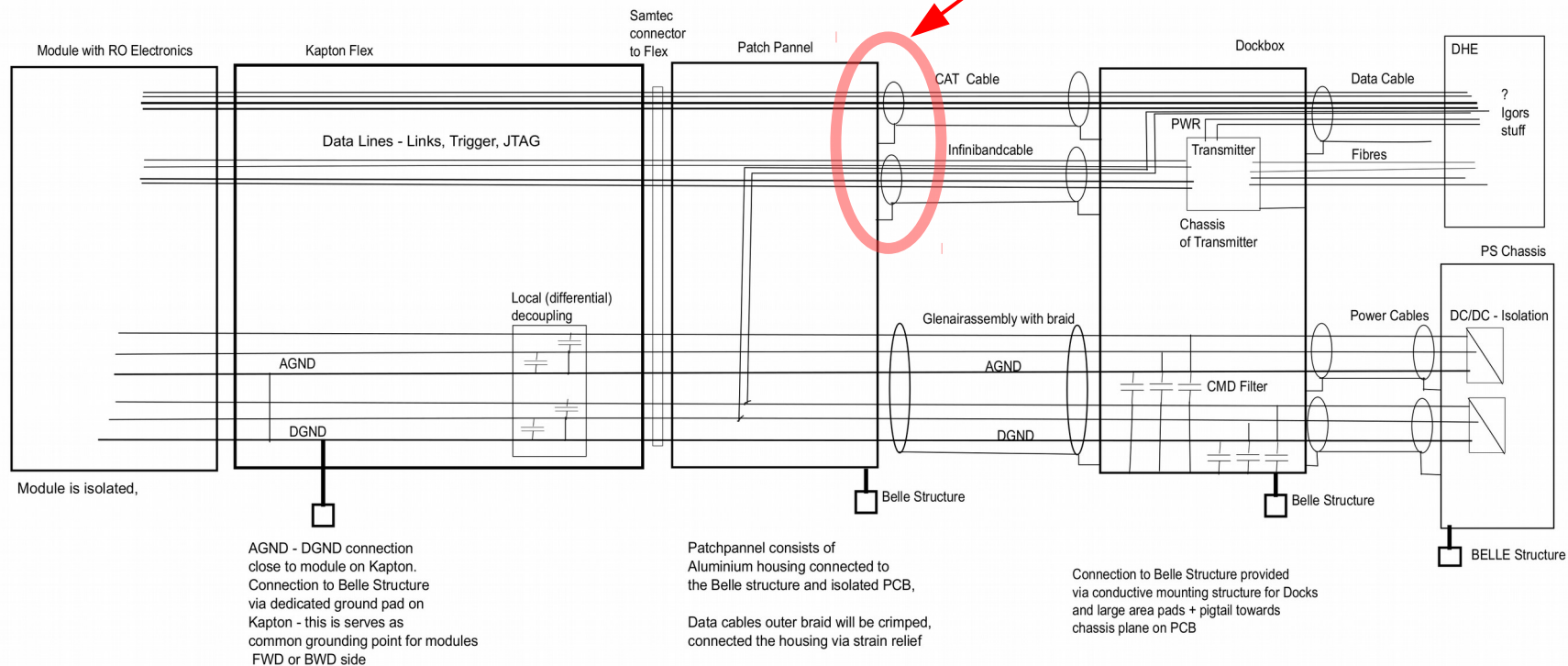
PXD Power Supplies and Services

Ladislav Andricek posted on 20. Nov. 2016 14:51h - last edited by Stefan Rummel on 26. Oct. 2017 17:08h

System

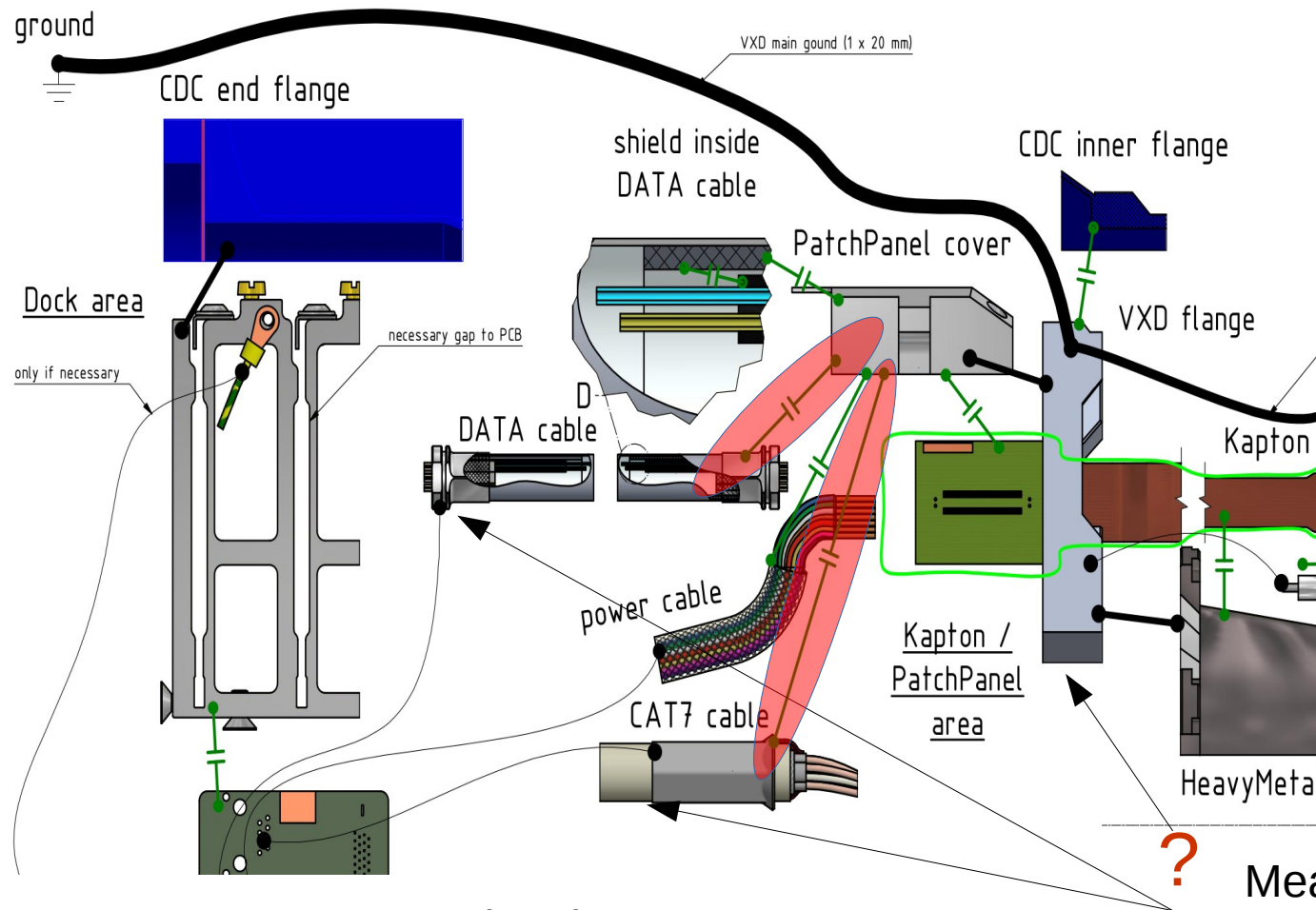
- Mains Power requirements
- Cable List
- Connections of cable shields [cable_shield_connections.pdf](#)
- Crate Controller How To - [CrateControllerHowTo.pdf](#)
- Backplane v2 - [Backplane_Doku.pdf](#)

cable shield
→ patch panel connections?



- outdated? → please update

Grounding/Shielding Update Patch Panels



Phase 2 BWD PPs in situ:



Measured resistances:

Infiniband shield → PP cover

IF = 0.6 Ohm

OF = 0.6 Ohm

IB = ~ MOhm

OB = ~ MOhm

CAT7 shield → PP cover

IF = INF

OF = INF

IB = ~ MOhm

OB = ~ MOhm

Measure these connections
- disconnected from DB PCB
→ **shorts detected!**

Spare PPs

CAT7 okay for all

Infiniband MOhm connection on
PDPP_L1FWD-01