

Production Readiness Review of the Forward Endcap VPTT Submodule Assembly

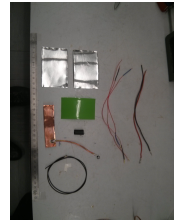
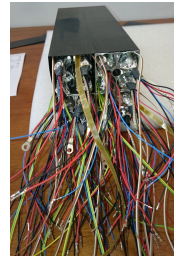
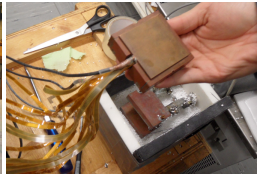
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PANDA Collaboration Meeting 17/3, Novosibirsk
September 5th, 2017

VPTT Submodule Production

- Production Readiness Review on July, 14th (A. Belias, H. Löhner, L. Schmidt)
- Bochum and Bonn colleagues presenting (talks and laboratory demonstrations)
 - Production planning,
 - Storage,
 - Assembly,
 - And quality control issues



VPTT Submodule Production

Subunit production for the
PANDA Forward Endcap EMC

PANDA EMC Note

INTERNAL DOCUMENT

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Kümmel, Claudia Schnier, Cathrina Sowa

July 19, 2017

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- Good opportunity to sort and document production process and documentation
- 40 page internal document “Subunit Production for the PANDA Forward Endcap EMC” for handout to review committee and production documentation (sometimes clarification while writing)

VPTT Submodule Production

- 10 page evaluation report received in August
- Summary: “Despite a few recommendations on optimizing the quality assurance, we encourage the teams at Bochum and at Bonn to continue the production, assembly, and calibration of VPTT subunits according to the planned procedures.”
- Optimization recommended:
 - Crystal-detector-preamp matching algorithm: Uncertainties of contributions to quality factor (“yield”) might be considered
 - Cosmics precalibration: Accuracy should be quantified
 - Components database: Recommendation to implement features for weekly QA and storage of logistics information



PANDA Forward Endcap EMC
Production Readiness Review



VPTT Submodule Production

- Optimization recommended (continued):
 - Temperature sensor manufacturing: Determination of critical resistance for sorting out bad sensors
 - VPTT-preamp unit assembly: Definition of limits when unit has to be rejected
 - Glueing: Recommendation to develop quantified judgement of connection
 - EDMS: Final versions of technical drawings should be stored in a secured EDMS Production directory
 - Definition of unique nomenclature: e.g. subunit → submodule (containing 16 crystal-detector-preamp units)

PANDA Forward Endcap EMC
Production Readiness Review

August 1, 2017

Andreas Behar, Michael Gahleitner, Lars Schmitt

- A little delayed we had a production readiness review of the VPTT submodule assembly
 - Very helpful clarifying, communicating updates in production steps
 - Pushed us to finish production documentation, cleaning laboratories
 - The review report gives valuable hints to improve QA (definite sort out criteria etc.) and documentation (some more to go into database)
- Further steps of production readiness review process:
 - Review of the assembly of APD-submodules (fall 2017)
 - Review of final detector assembly (spring 2018)