

TPOT Status

Hugo Pereira Da Costa (CEA Saclay/LANL), for the TPOT team PMG meeting, June 24, 2022

Updates since PMG 2022/05/19



Micromegas production at Saclay

- 6 modules total (1 at BNL, 5 at Saclay), out of which 2 are validated (1 at BNL, one at Saclay).
- Other 4 modules under validation at Saclay
- Shipping date to BNL for this first batch of modules (modules 2 to 5) postponed to June 27 (was June 6)
- Shipping date to BNL for the second batch (6 to 10) unchanged: July 11
- Assembly schedule has been updated accordingly. No change on delivery date, provided we can assemble TPOT sectors in parallel.

Mechanics

- First batch of parts ordered, some of which received and sent to Saclay. (Module assembly)
- Remaining parts will be ordered this week/early next week
- Ongoing discussions concerning the FEA analyses requested at FDR
- Agreed with TC that should move forward with ordering parts nonetheless

Others

- Identified and visited module testing room at SBU. Identified detector assembly room at BNL (bdg 912)
- At BNL, Module 1 tested and validated with final electronics (same as TPC) and the complete sPHENIX DAQ chain
- · TPOT cooling system tested and validated
- TPOT HV system rested and validated
- TPOT ESRC happened on June 21 (last Tuesday). No showstopper. Need finalizing installation plan and prepare lifting plan
- received TPOT-to-FEE transition cables+boards from SAMTEC on June 21. Tests begin next week

June 23, 2022 PMG monthly meeting

Milestone

HV system tested

LV systems

Slow controls

Number of TPOT modules produced

FEA analysis finished and reviewed

FEE to detector fabricated and tested

TPOT mechanical support assembled

TPOT ALD review, decision point

Installation of TPOT in sPHENIX

End of TPOT assembly

June 23, 2022

Characterization of first 5 TPOT modules at SBU

Gas system designed, ES&H reviewed and tested

installation of modules 1-4 on support structures

installation of modules 5-8 on support structures

First batch of 5 TPOT Modules assembled & tested (Saclay)

Second batch of 5 TPOT modules assembled & tested (Saclay)



risk

moderate

low

moderate

low

done

moderate

moderate

low

moderate

moderate

moderate

moderate

moderate

High level milestones and risk	High	leve	miles	tones and	risk
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High level milestones and risk

date

Today

18/05/22

 $06/03/22 \rightarrow 06/24/22$

 $06/23/22 \rightarrow 07/01/22$

06/16/22

05/31/22

06/16/22

 $07/01/22 \rightarrow 07/22/22$

07/08/22

07/07/22

07/14/22

July 22

 $07/01/22 \rightarrow 07/22/22$

08/12/22

09/30/22

10/07/22

PMG monthly meeting

Status

requested

FDR happened, more FEA analyses

6 modules assembled, test ongoing

cables/boards received on 6/21

happened on Week 21 (May 23)

(assembly ends on 06/24/22)

designed and ESRC reviewed on 6/21

(also depends on sPHENIX schedule)

centralized sPHENIX

centralized sPHENIX

6

Backup

Module 1 tests at BNL







