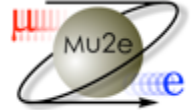


WP2 update

Matteo Martini and Stefano Miscetti

MUSE Scientific Committee
24 October 2016



The main update respect to our previous General Meeting on September:

- Mu2e General Meeting in FNAL between 19 and 22 October;
- Progress in Module-0 construction (completion January 2017);
- Progress in Mock-up construction (completion February 2017);
- Calorimeter slice test planned with Module-0
- Mechanical review delayed (end 2016);
- Purchase order for crystals preproduction submitted from FNAL on 18th October (Saint Gobain, SICCAS, Amcrys);
- Procurement of 150 mu2e SiPM (50 pieces per vendors) completed on October 17th (Hamamatsu, SENSL, Advansid);
- Optimization of calorimeter cooling plate in progress.

Status of “large” bids: crystals

- **3 vendors selected for preproduction (72 crystals)**
St. Gobain, Siccas, Amcrys
- All firms accepted have prices < 1500 \$/piece (well inside our budget)
- We have required them to provide 24 pieces/each for module-0.
- **The same crystals will be used to technically evaluate the firms.**

Purchase Order from FNAL submitted on 18/10.

- St. Gobain and Siccas delivery in 2-4 weeks.
- No information yet from Amcrys.

- Procurement of additional 50 crystals from Amcrys via Dubna group. Specifications proposed are similar:
only difference is $LY > 80 \text{ pe/MeV}$ w.r.t. $LY(\text{Mu2e}) > 100 \text{ pe/MeV}$
- This will increase the number of crystals tested for technical evaluation.

- **Delay for Module-0 assembly for test beam @ BTF end of November**
- **Still in time for Module-0 completion @ end of 2016/beg. 2017**

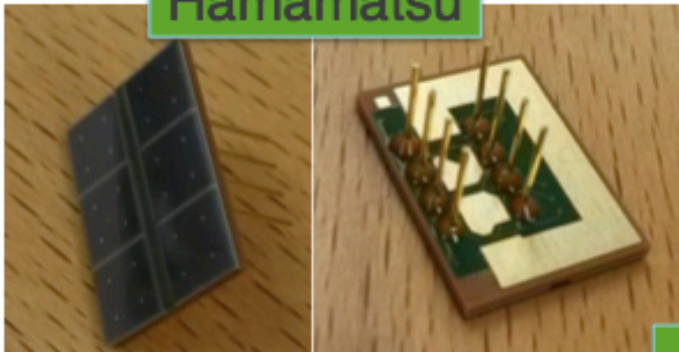
S. Miscetti, Mu2e GM

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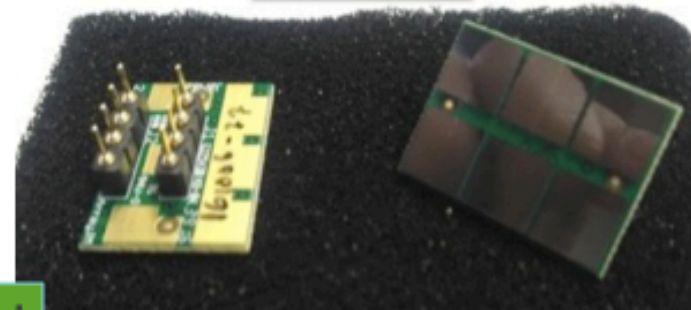
Mu2e SIPM pre-production – delivered pieces

Each SiPM has its own ID and the firm has provide all the parameters required for each single SiPM of 6x6 mm² (cell) of the array:
 (i.e Hamatsu XX, Vop = YY.YY V, Id = Z.ZZ uA)

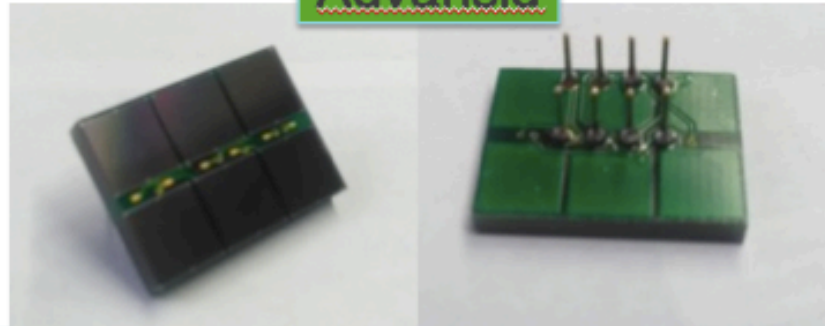
Hamamatsu

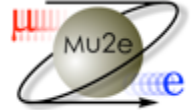


SensL



Advansid





- All activities related to WP-2 are proceeding smoothly
- A lot of work is in progress to finalize:
 - Mechanical structure
 - Module-0 and Mockup for physics and engineering tests
- Crystals and SiPMs procurements are proceeding according to schedule
- Collaboration between people and institutions involved in WP-2 is solid!