

EUSO-SPB notes April 3rd Telcon

Lenses Takky, Marco C. Manufacturing rear lens rough processing rough work will be finished end of this week. Next week start fine processing of rear lens Diffractive situation - may start the manufacturing. Very busy. Asking the current situation. Thinks they have started so then they are very busy. Asked last Friday and Last Monday.. Toshi is aware of the situation.

Ikegami machine is only one. Finish this first lens. Another company asked for quote, but not provided. Concerns about diffractive lens in Omori Lab.

Only about 3 people who can do this lens.

Ikegami company machine had experience to make these lenses. Use a new technique, so perhaps. Then Ikegami machine can make the lens

Lens testing. Wednesday. Same Time

Gondola/Shipping Lawrence/Peter Design of exoskeleton in progress. Redbox, lenses, mounts, to ship from IRAP this week via air freight. CSM also in process of ordering a crane for lab, and trailer for moving detector for field tests.

PDM (Guillaume) - tested at 1 bar and it works, now working to prepare set up of same test at 3 mbar. Should have result middle of the week. Potting looks well done. Arrangements for INFN payment. Matra has ordered the resin. Working to have all pieces around mid-april. All the PMTs sorted and HV PCBs also. Have all 100 PMTs. Student of Christer working with Simon to do the sorting of the 2nd half of the PMTs.

Action Item: Need to speak with Jacek in detail about production of HV boards

Action Item: set up INFN payment to Matra

Good news from Matra about rate, but need to start ASAP.

Action Item: Temperature Test after 3 mbar test.? Cool mini-vacuum chamber in ice-water?

Did not do test at all the subsystem level before production.

22 EC Units

ASIC (Pierre) asked for production of 3 of these expect to arrive Friday - will send to KIT, KIT will start assembly Monday. Expect to get them back at the end of next week. Will need send connector. Will take connectors to APC. 20 ASICS left to test, yield of 93% will have enough ASICS for 2 PDM's at beginning. 3 boards produced w/o kapton. In the mean time will work on routing on version w/ Kapton coming out. Discussing with company in charge of production and they gave some important device to design this board. Impact on routing is enormous, can't start until we know the first boards are

OK. Decided to wait for first boards to be testing and checks.

PDM Board Jorge: Received first before Easter - smoke test, jtag connection OK, in the meantime a few problems. EC-ASIC connectors are turned by 180 degrees, in touch with company. ordered new connectors, in workshop to drill, company will pick up and try to exchange. 2nd problem is that the 2nd board is not as fine. Can talk to FPGA, but tend to believe there is a problem with the FPGA. In contact with company that designed FPGA. Strange problem. Not exactly sure how to proceed. Put defective board under X-Ray

Guillaume: FPGA and not PROM. J: not at stage to test the prom.

Jorge send a description of diagnostic on a xilinx forum that describes the test and symptoms

<https://forums.xilinx.com/t5/Virtex-Family-FPGAs/Virtex-6-Verify-fails/td-p/690905>

Probably should assembly a second board.

HVPS - no report

DP Giuseppe. Worked last week on Timmins models. Everything works properly at 24 volts. For flight model. Still waiting for HK, but just received from Guillaume that HK is coming to APC. For systems in Napoli, must remove ? we have on LVPS for CPU and disks because in Timmins version we were able to switch on an off disks and CPU by HK, but now switched via SIP and science stack and relays. Would like to ideas for Gustavo and Mexician colleagues on how to operate the modification on the hardware.

For flight model able to CPU with LVPS. The problem of inrush is still present in LVPS on spare model. Not able to switch on new CPU by using new LVPS. Don't know why. In principle they should be the same. Not able to turn on new CPU just using one disk. Difference between LVPS spare and flight model. Concerned Received PCI adapter card. New CPU is able to drive space wire board. Ordered two more PCI adapter cards. Trying to see if it is possible to reduce the order time.

Thermal Model William H. Circulated update presentation on thermal model that focused on the batteries for hot and cold cases. Looks like the batteries will need to be insulated and kept warm with heaters. First pass study with individually insulated batteries calls for 5w for batteries which at 14 batteries = 70 wattts which is too much. This work is in progress.