7月のプラン

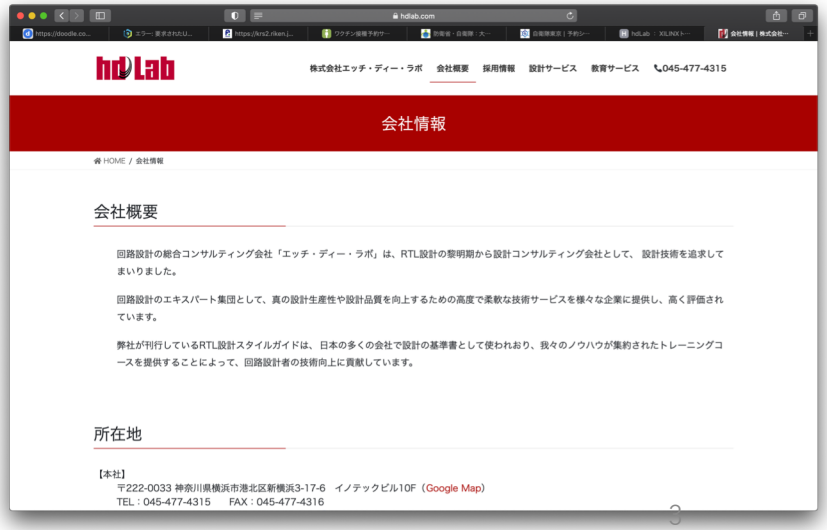
Xilinx FPGA Code Upgrade

- The present FPGA codes are written in FVTX era and compiles with Xilinx compiler ISE7.1 version (~Year 2007).
- ISE7.1 runs on Windows-7 and not compatible with later versions like Windows 10.
- Due to security defect of Window-7 and therefore the our standalone DAQ machines are not allowed to be hooked up in the network.
- These codes are not compatible with the latest ISE 14.7 which runs on Windows 10.
- We are well aware of the potential risk to stick with Windows-7 computer throughout the term of INTT lifetime (~2025).

Xilinx FPGA Code Upgrade?

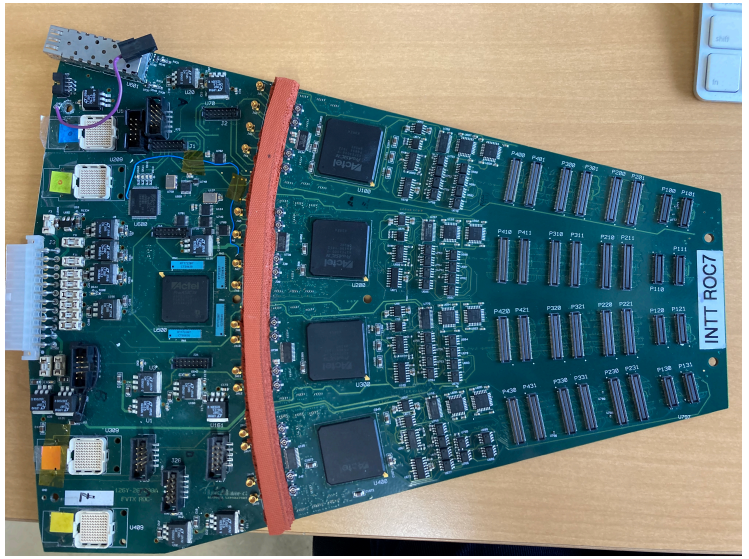
- Attempted to upgrade FPGA codes in 2018 at RIKEN by inviting a FPGA code tutor.
- We did modified the code to be compatible with ISE14.x by ourselves, however, we gave up due to the lack of expertise in FPGA coding in our team.
- Since then no action was made.

Itaru resumed the FPGA upgrade plan. This time we provide the codes to a company and outsource the modification to be compatible with ISE14.7.



ROC Regulator Replacement

- ROC-7 is back after replacement of all analogue(2.8V)/digital(3.0V) regulators for FPHX chips.
- Shall we forward this board to NWU for the phase follower test?
- For the phase follower test, we need the conditions which reproduces half entry in regular basis. So far the test bench in RIKEN is not the ideal testing ground.



Scope for Readout Review

- HDI (Itaru)
  - Production Status
  - Thruhole quality control　(Outside the scope?)
  - Performance
- Bus Extender　(Takashi, …)
  - ~~Length optimization (Dan, Rachid)~~
  - Preproduction fabrication (yield rate, thruhole, peel strength issue, etc..)
  - Electrical Performance
    - TDR (Kondo-san)
    - S-parameters (Kondo-san)
    - BER (Kondo-san?)
    - Eye-diagram (Kondo-san, Morita-san)
    - Actual data transmission (Half entry issue)
  - Mechanical Performance
    - Radiation resistance (Hikaru Imai/Takashi/Itaru)
  - Production Plan and Schedule (Takashi/Itaru)
- Conversion Cable (Itaru)
  - ~~Curving Design (Dan)~~
  - Column-B,D (Itaru)
  - Production Plan and Schedule
- ROC (Itaru)
  - Regulator & replacement plan and schedule
  - 1008 ROC performance test status
- FEM & FEM-IB (Outside the scope or should be addressed as a back up of FELIX solution?)
- Data Acquisition (Outside the scope because It's a part of FELIX? Otherwise we can only report about 2018 beam test.)
- Slow Control & Debugging Tools
  - **Slow Control Feature to be implemented to FELIX**
  - Readbacker for standalone (Takashi) and 1008 (Itaru)
  - Interception board for debugging (Itaru)