Development for the electronics status 5.July 2013:

1) New flex PCB is ready for production, we will order 20pce and assembly some with detectors. The expeced date of first flex modules is 31.July 2013 (find the dimensions in the step file, and a view of the PCB below). Temperature sensor NTP or PT1000 pad implemented on the backside of the flex. Pins routed to connector.

Note: We have kept the same connectors as on the present flex (same pin out), this allows for easy attachement to the present electronics.

Stiffener on the back of the flex should be made of a kind of ceramics (Alumina) which allows for good heat conduction and isolation at the same time.

2) The attenuator with the Beetle is under test, for the Ketek and the Hamamatsu detectors pulse shape scans were done and we are bonding a new circuit with small amount of identical channels. PCB will be layouted and produced during the next 6-7weeks (holidays and production time). Working hardware expected in about 2 month from now. 4 channel Beetle board.

Problem with common mode requires very careful layout (separate analog and digital GND and filtering). Common mode is the major source of noise at the moment (difficult to remove in LED injection because all channels have light).

3) Step files and some pdf views of the new double layer modules available. They are called BGV modules and will give some complementary info to the prototype modules with monolayer. They are expected to be ready for test in 12 weeks time! Aachen starts looking into the cut out and fiber end cutting.

4) Internal discussion with Hamamatsu CH 4.July 2013, new detector 128CH with CB-02 trench technology under way. Samples can be expected by the end of the year. Several questions should be answered in the process of finalizing this:

a) Pulse shape (faster tau_1, slower tau_2) (towards Ketek pulses) as fast as possible the fast component and slower the slow component for best possible separation with pole zero cancellation (high pass filter)

b) Size of detector (6 fiber layers or 5) , in principle we should directely go to 6 layers , there is not enough light!
