# FGT/IST Work Coordination Meeting

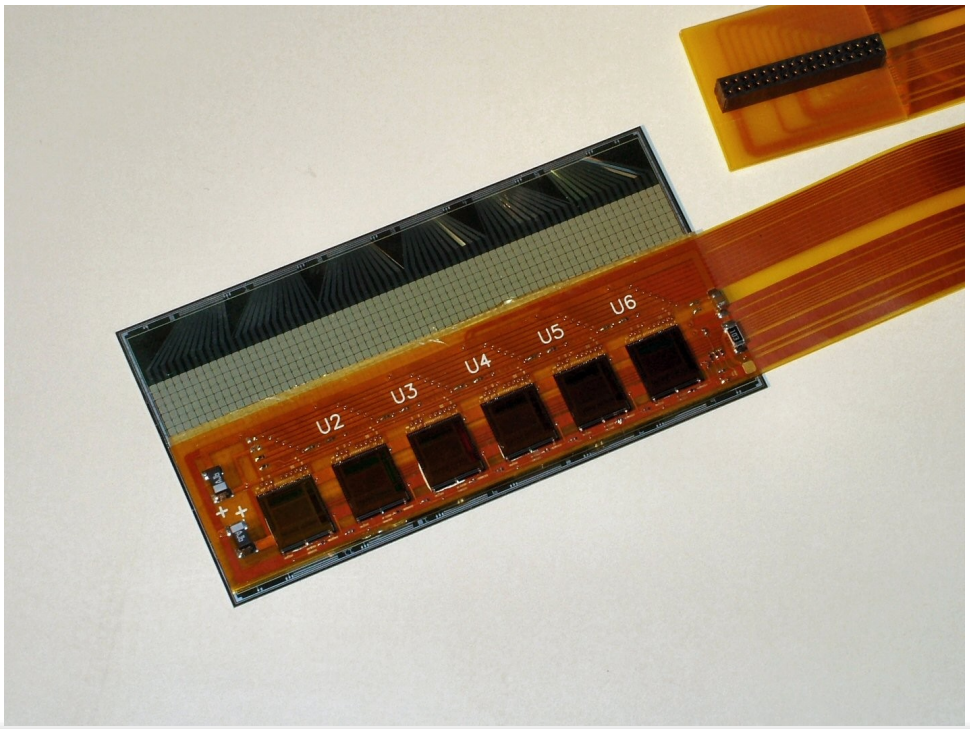
Gerrit van Nieuwenhuizen

Bates, Jan. 8, 2009

# Agenda

- Bonding machine status, Dale
- IST prototype hybrids assembly, Dale
- APV readout system, transition card, Gerrit &Miro
- FGT and IST SolidWorks, Jim & Jason
- FGT full scale thermal model, Doug & Dale
- FGT thermal model DAQ, Gerrit
- FGT prototype sections, Jim & Jason
- GEM foils, Doug & Dale
- AOB

# The pre-prototype




1536 channel PHOBOS sensor

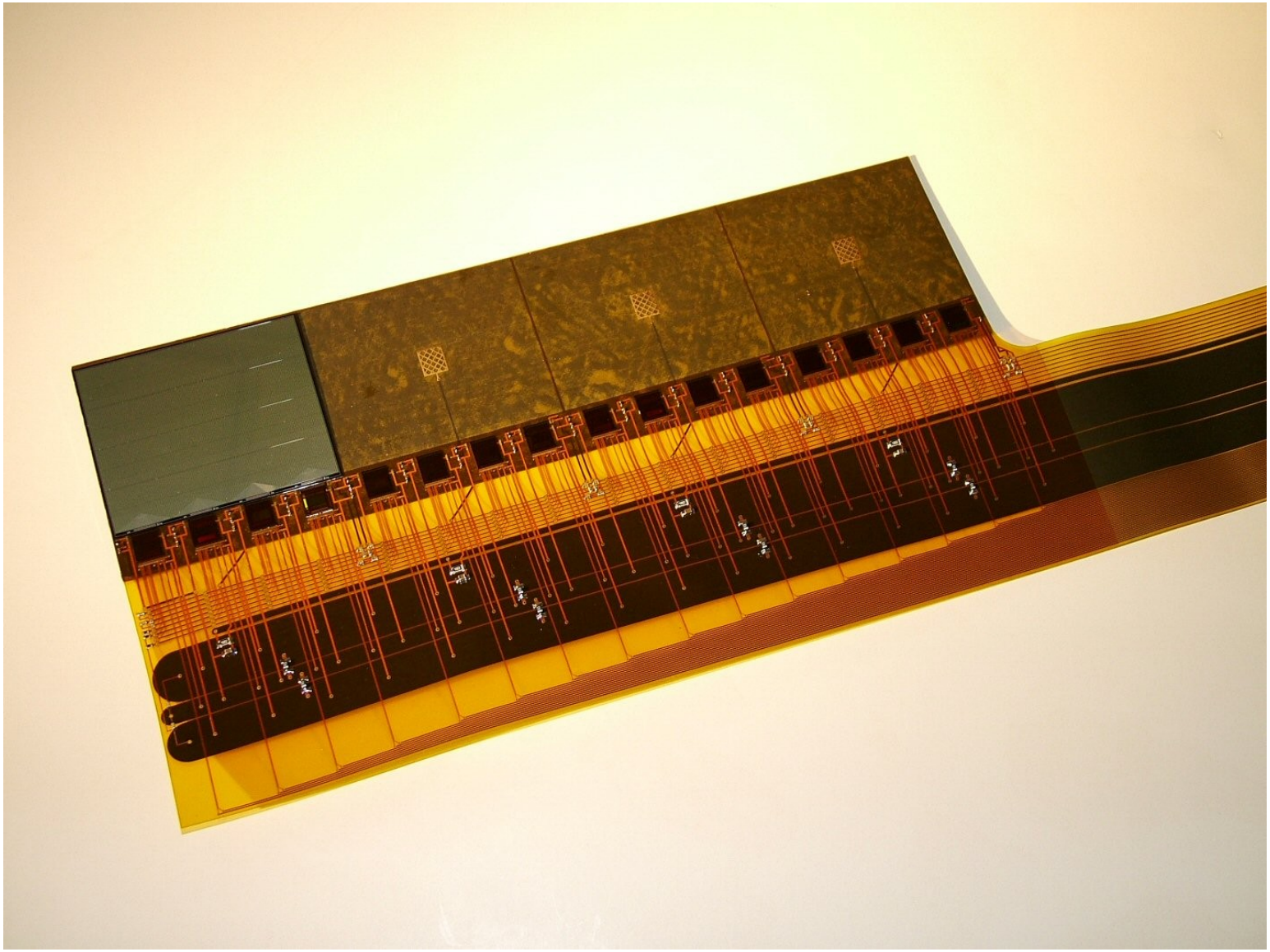
Kapton hybrid mounted directly on sensor

Difficult to assemble and doesn't gain you much in material budget

This will be a nice bonding test

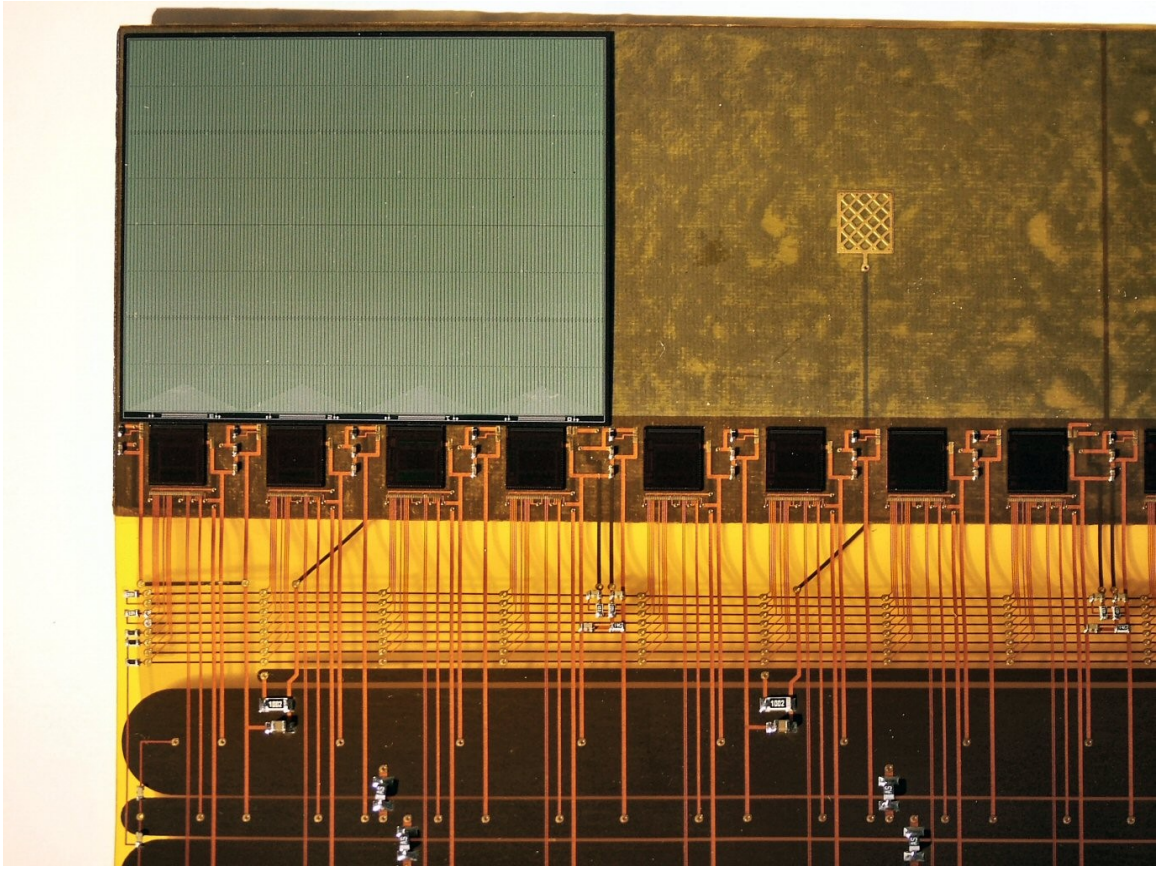
And a nice test module

# The FY08 R&D hybrid



**With 16 APV25-S1 chips and 1 PHOBOS IV sensor mounted**

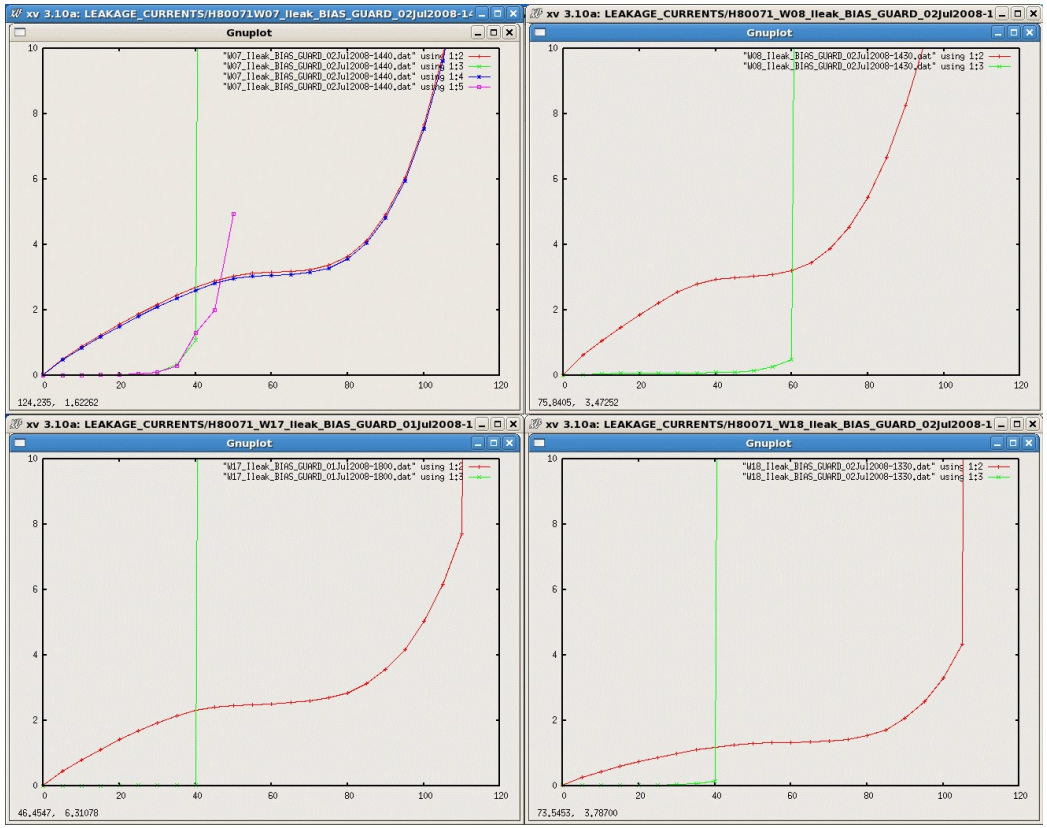
# The FY08 R&D hybrid



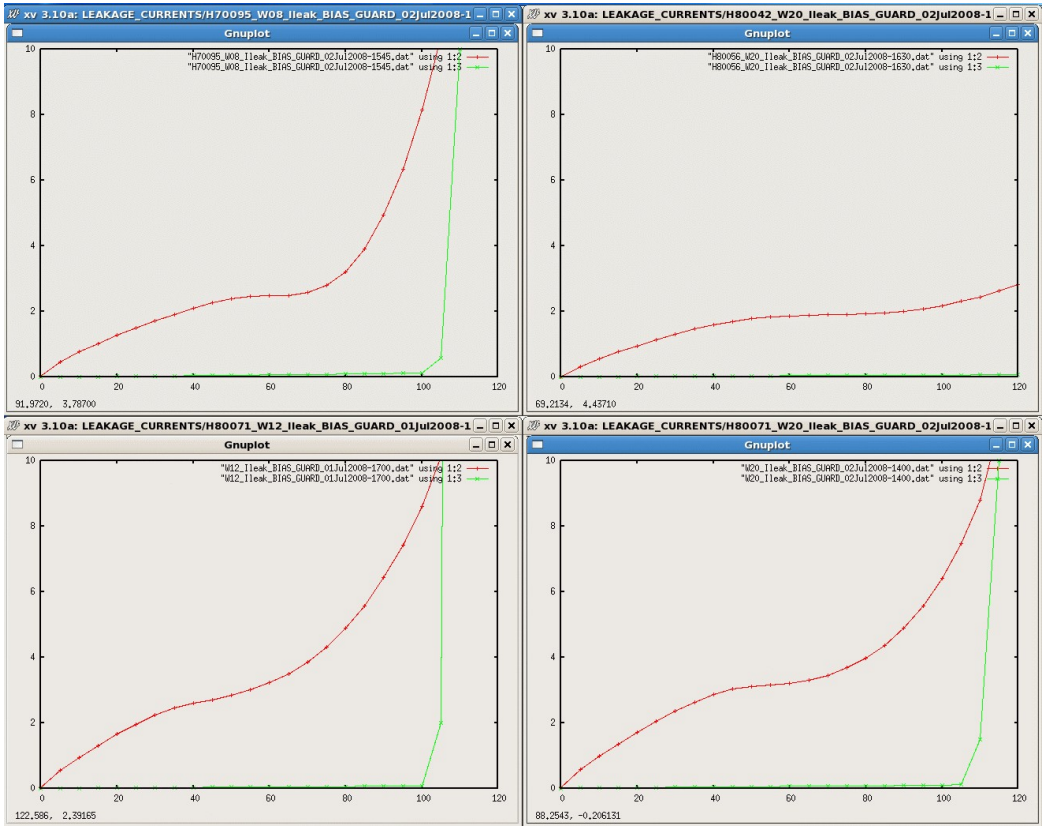
We have 2 CC backed hybrids
Using the available PHOBOS IV sensors we will be able
to make 1 module with 4 operational sensors
and 1 module with partial operational sensors
(not fully depleted sensors)

# The FY08 R&D hybrids sensors

## Prototype 2




## Prototype 1



# Bonding machine

Bonding is very inconsistent

Several iterations now trying to repair

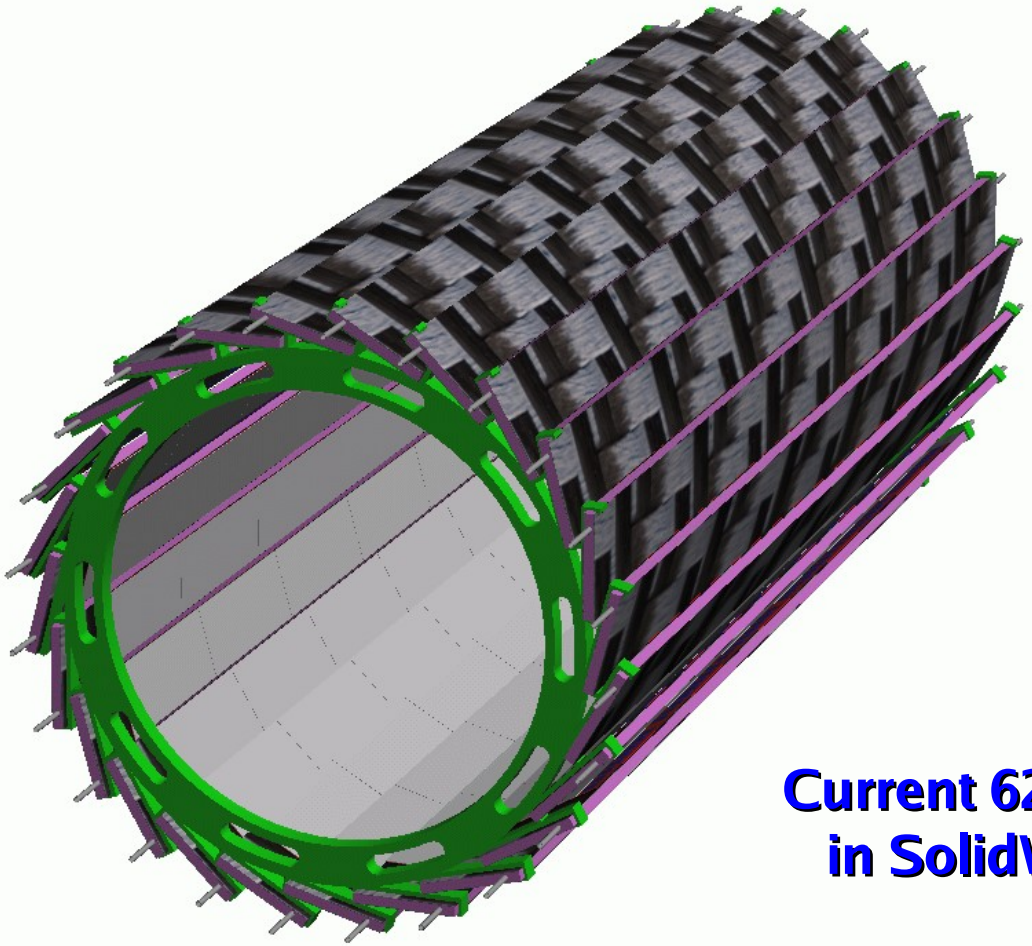
Ultrasonic generator replaced

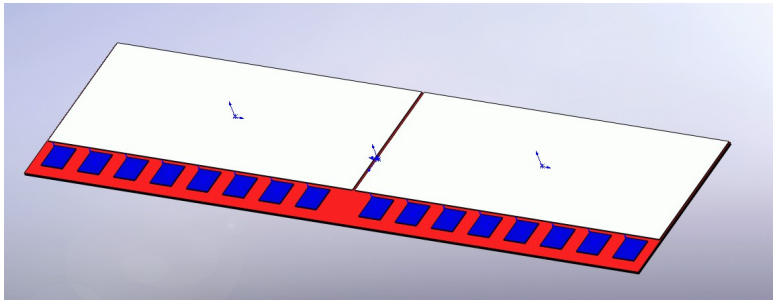
Bonding head replaced (ruby pins)

Waiting for Palomar tech setup

Costs covered by service contract!

# IST SolidWorks



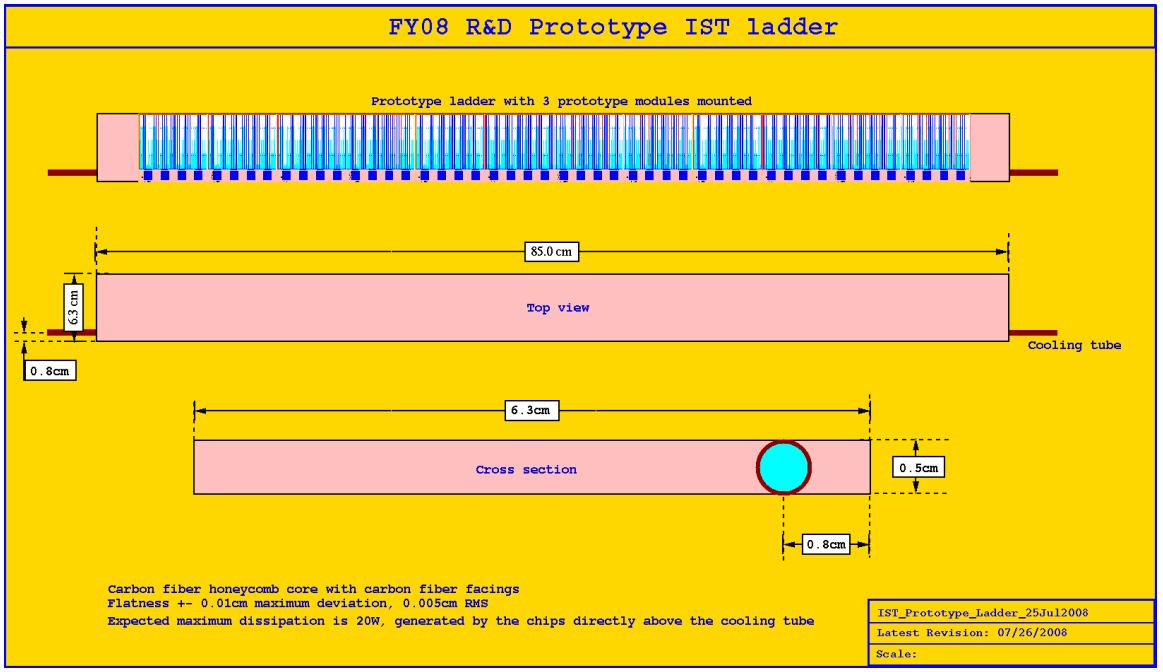


**Current 62cm long ladders implemented in SolidWorks**

**Studying the ladder support pieces**

**Gerrit comments to Jim.....**

# The FY08 R&D ladders



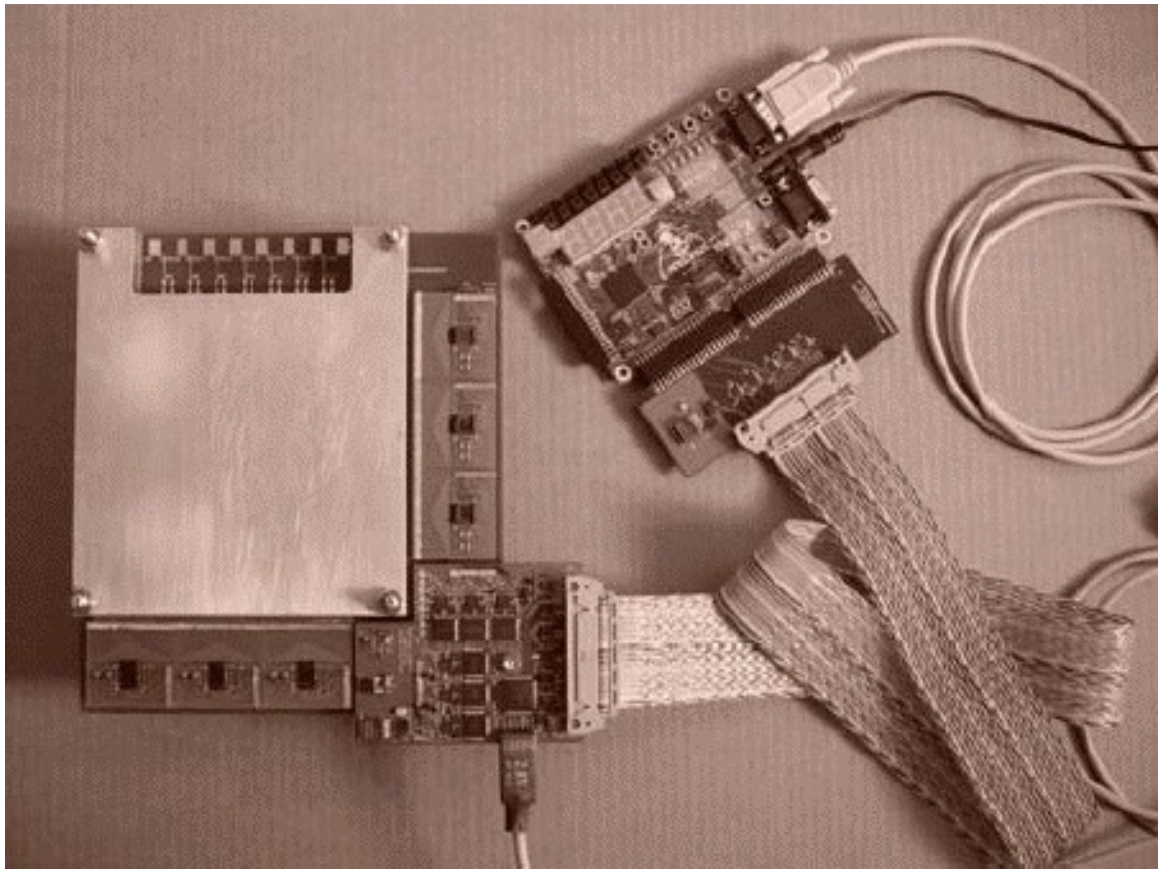

**With 85cm quite a bit longer than the 61cm on paper and much longer than 42cm expected**

**Will provide nice mechanical test**

**And the possibility to mount the 2 hybrids and do some thermal tests**

**Currently 2 finished ladders being tested at LBNL**

# The FY08 R&D readout systems



No final prototype readout available
We have 2 test readout systems available
- 1 Windows/LabView based for tests at Bates
- 1 Linux/LabView and Linux/Comedi based at BNL

# The FY08 R&D readout systems

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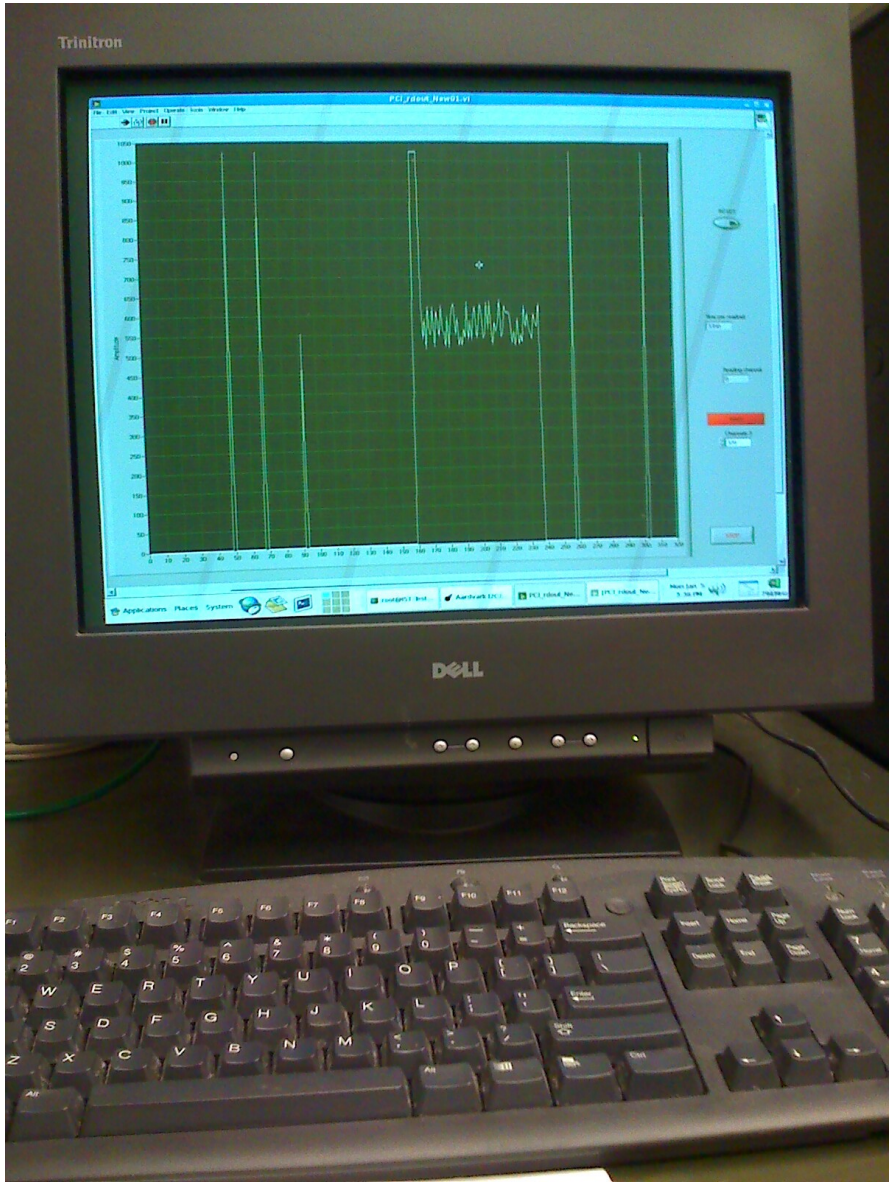
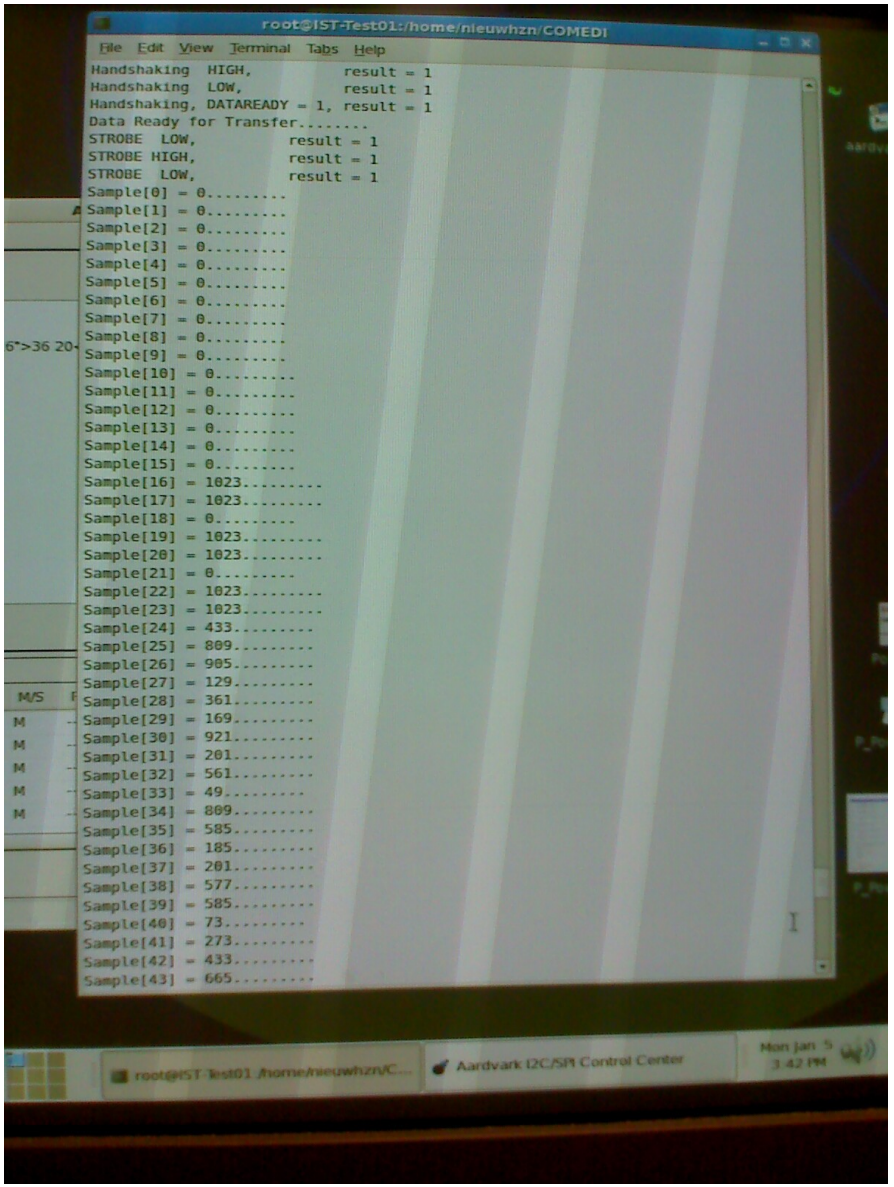
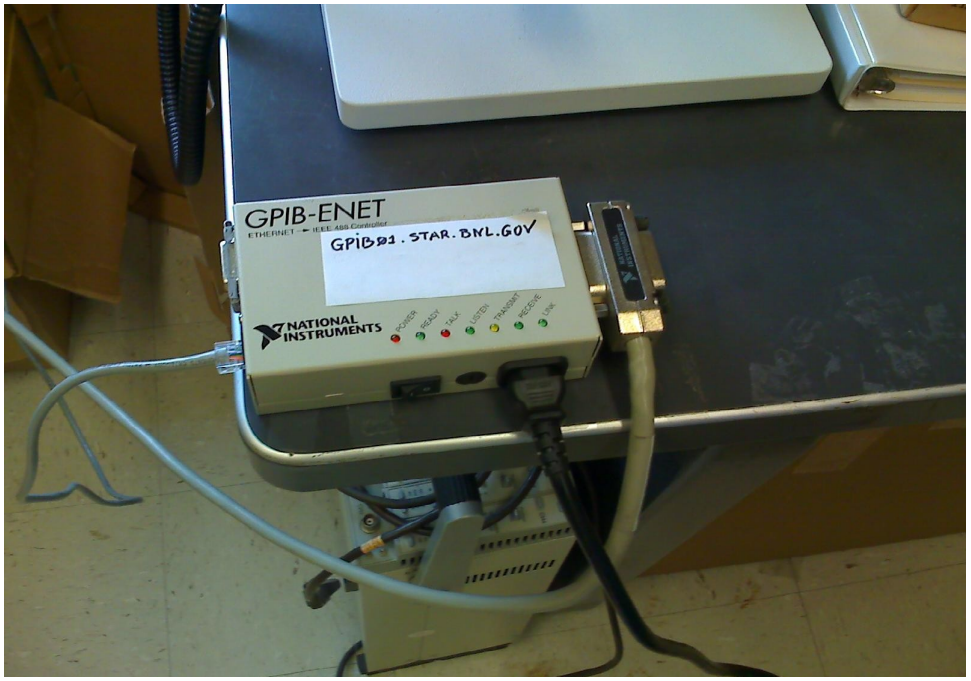
## Linux LabView Readout




## Linux Comedi Readout



# The FGT Thermal DAQ system

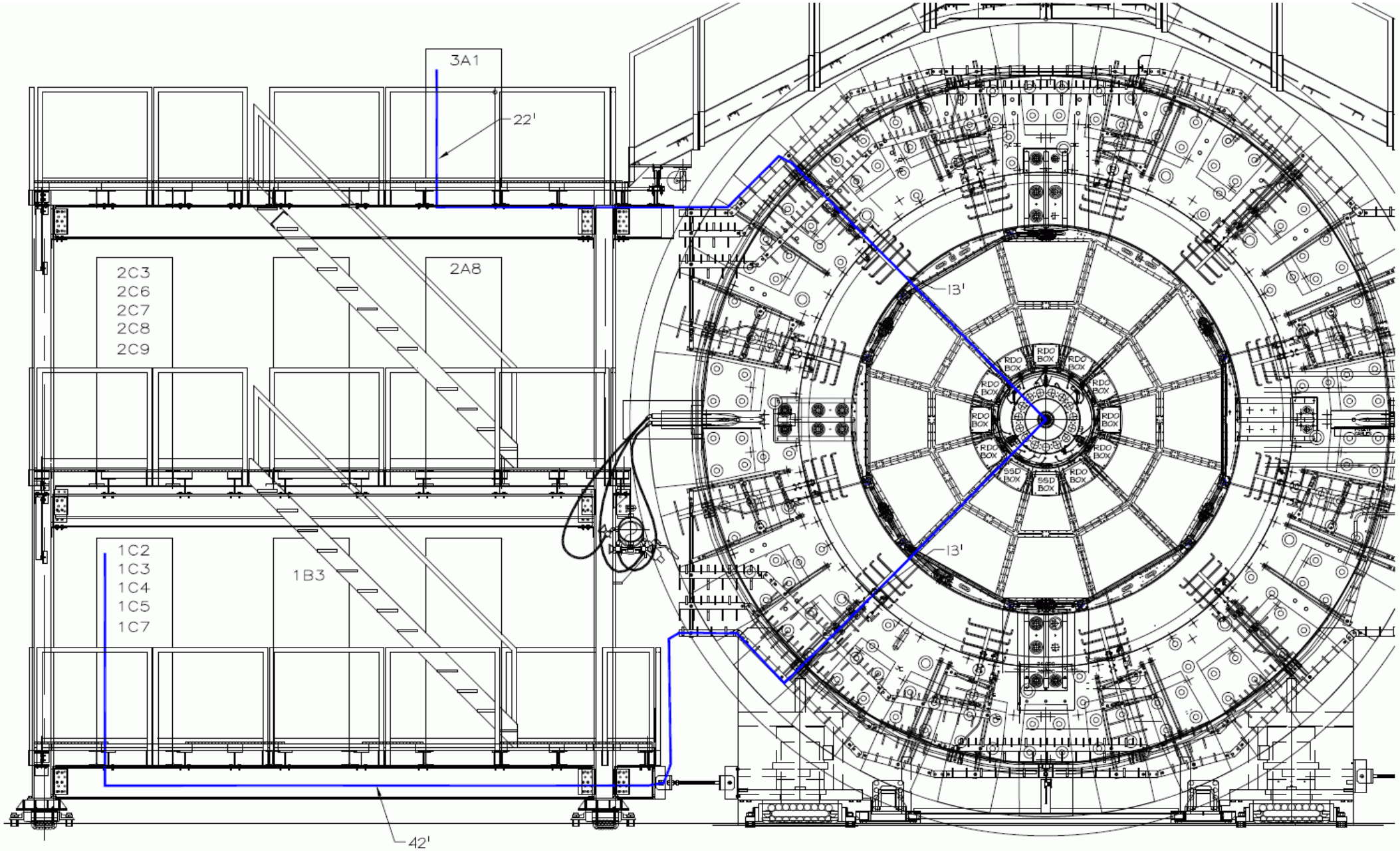




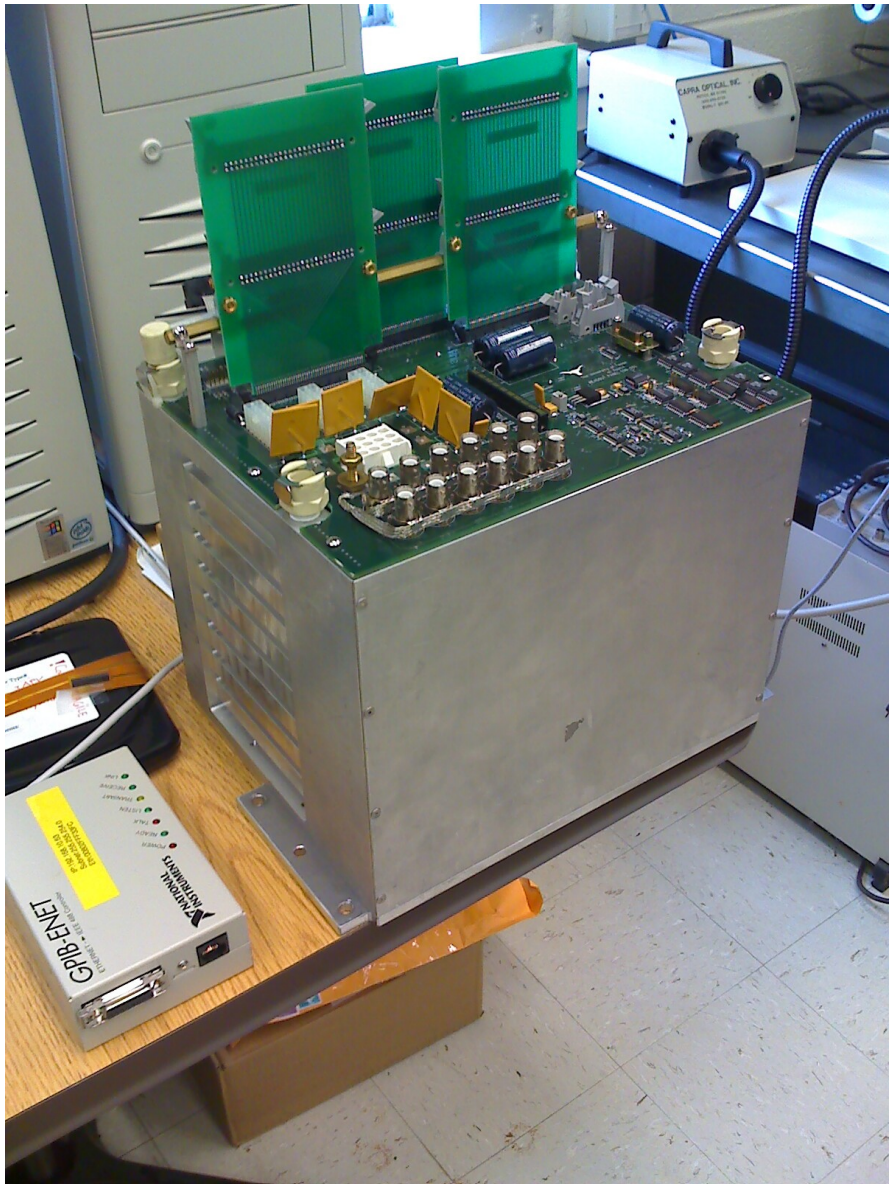
**GPIB-ENET can only be IP configured through pre-Windows XP software!!!**

**Done, and then the LabView GPIB software destroyed my LabView readout system, back to 0....**

# FGT & IST in STAR



# IST transition boxes




Old SVT RDO boxes

12 on East, 12 on West side

Comes with all mountings

And water cooling

Perfect for IST transitions