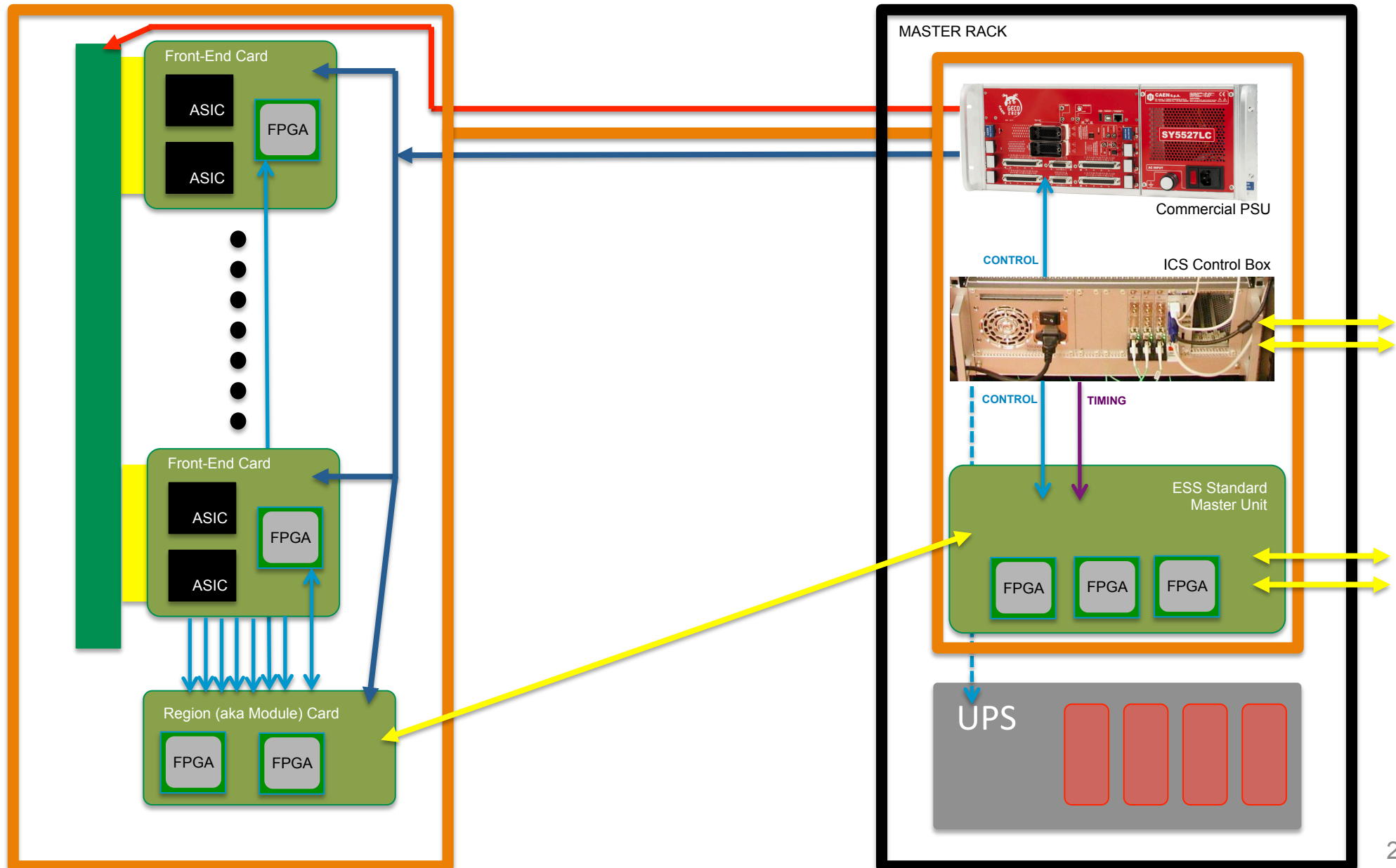# Band-GEM Readout Meeting

Summary/Conclusions/Actions

Milan-ESS Meeting
26th July 2016

BAND-GEM Module Integration (2015)

Assister Module

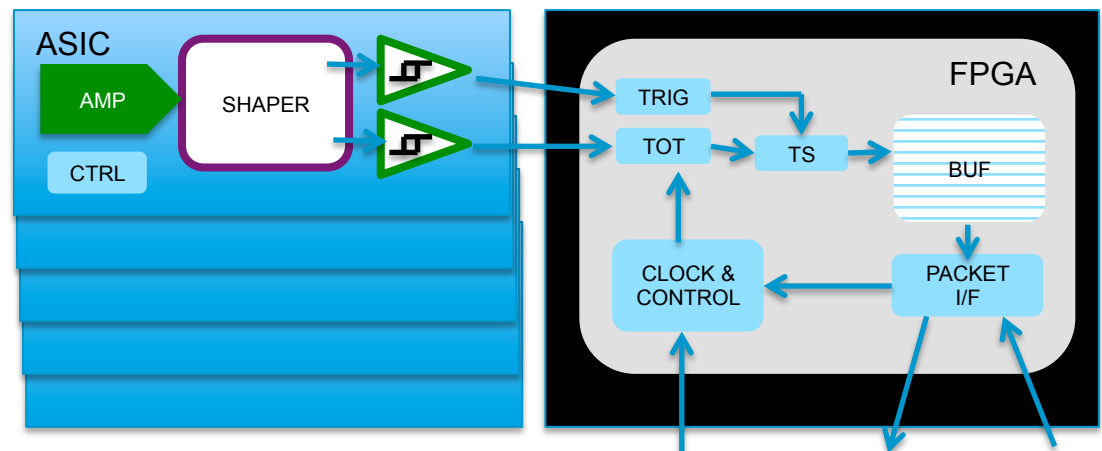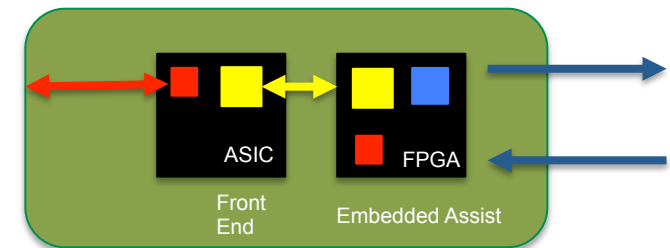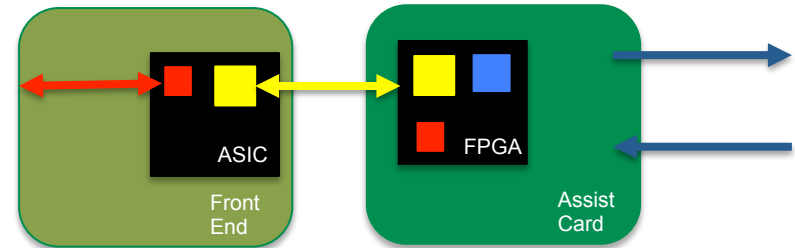To adapt ASIC at the FE card. Can provide:

- Timestamp
- ToT counting
- Comms to next layer (ring or star).

Device?

Upgrade?

PoC with demo boards?

Ring/star tests

Key points

- Questions of gas barrier, radiation shield, adjustable tilt of module planes to be reviewed.

- Gemini chip to ESS for integration testing.

- Event mode only for ESS, no histo mode required.

- Test pulse facility to be considered in future iteration of Gemini.
  Also question of noise many/short pulses on output. Possible hysteresis on comparator.

- Packaging long term to be considered. Bare die hybrids?

- Plug in module with 2/4 Gemini and FPGA to be designed, with back end following some 'pointer' guidelines from ESS. Ethernet to be implemented for stand alone testing.

- Radiation hardness requirements to be set, on the basis of simulations and studies of FPGA tolerance.