

GLIB and CMS Pixels μ TCA FED

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Outline:

Gigabit Link Interface Board (GLIB)

GLIB “Ecosystem”

CMS Pixels Phase I Front End Data (FED) Development

Future Plans

Gigabit Link Interface Board (GLIB) AMC Board

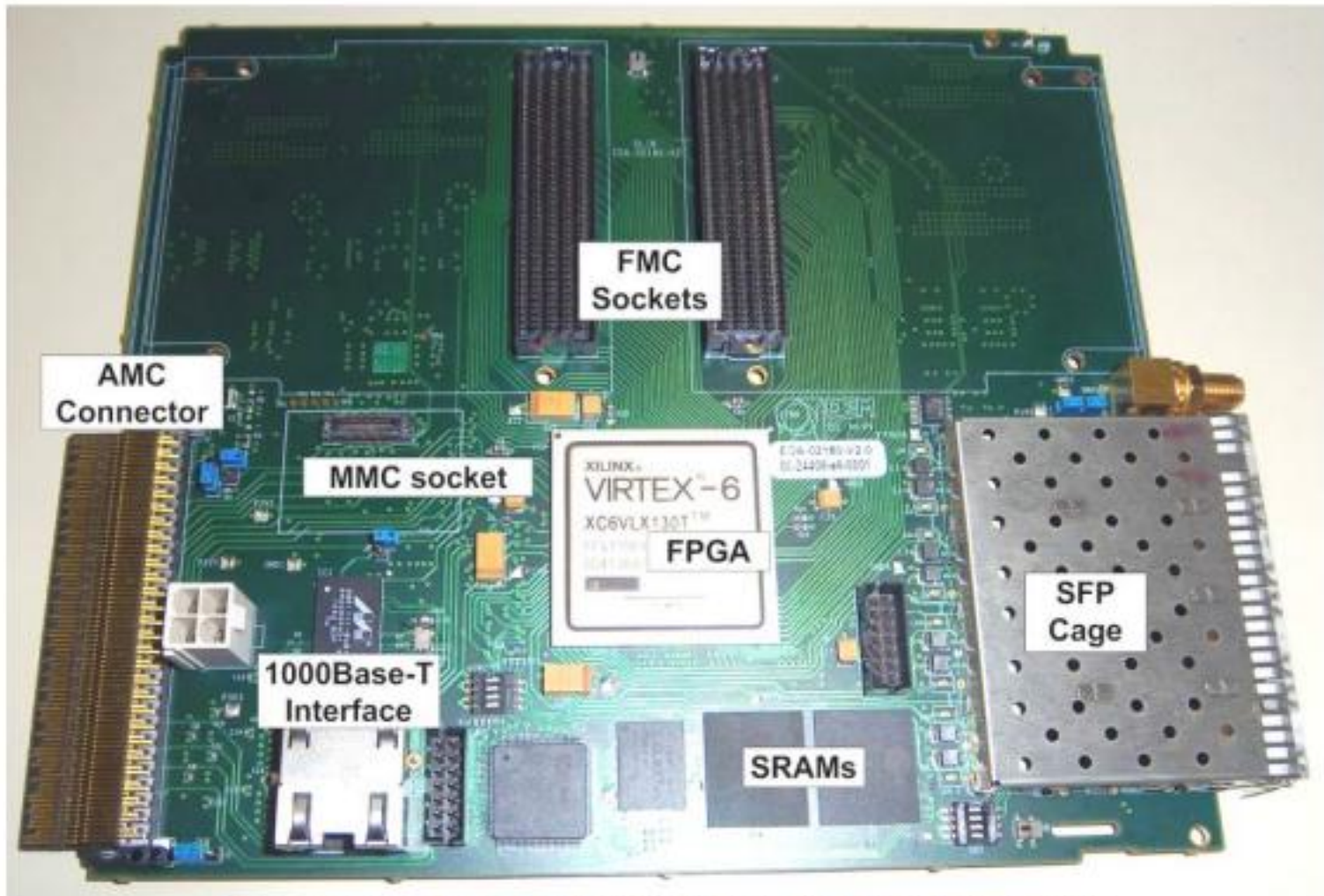


Figure 1-3: Picture of the GLIB prototype highlighting its major components.

Gigabit Link Interface Board (GLIB) System Block Diagram

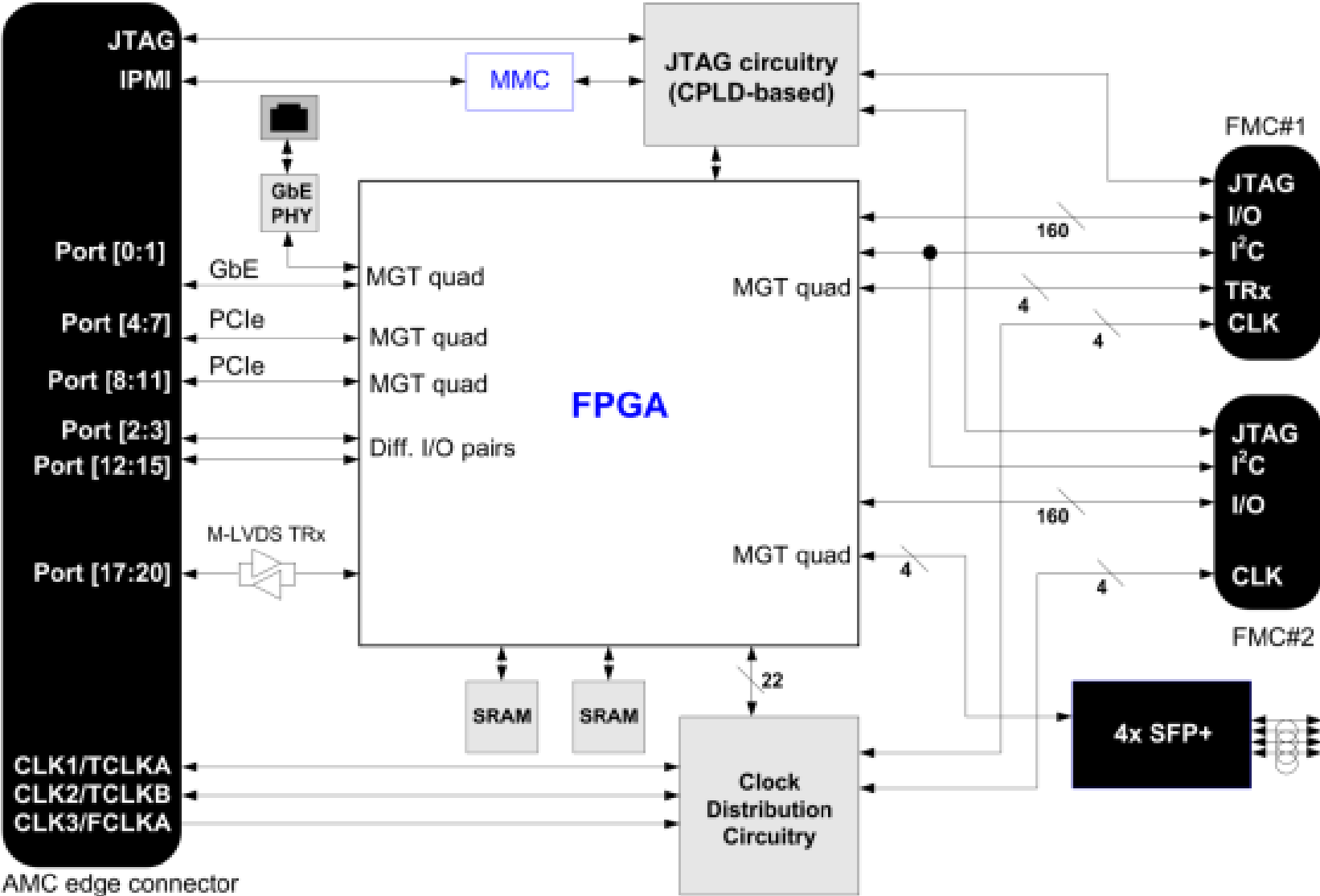


Figure 1-4: The Block diagram of the GLIB AMC card

Gigabit Link Interface Board (GLIB) Firmware Architecture

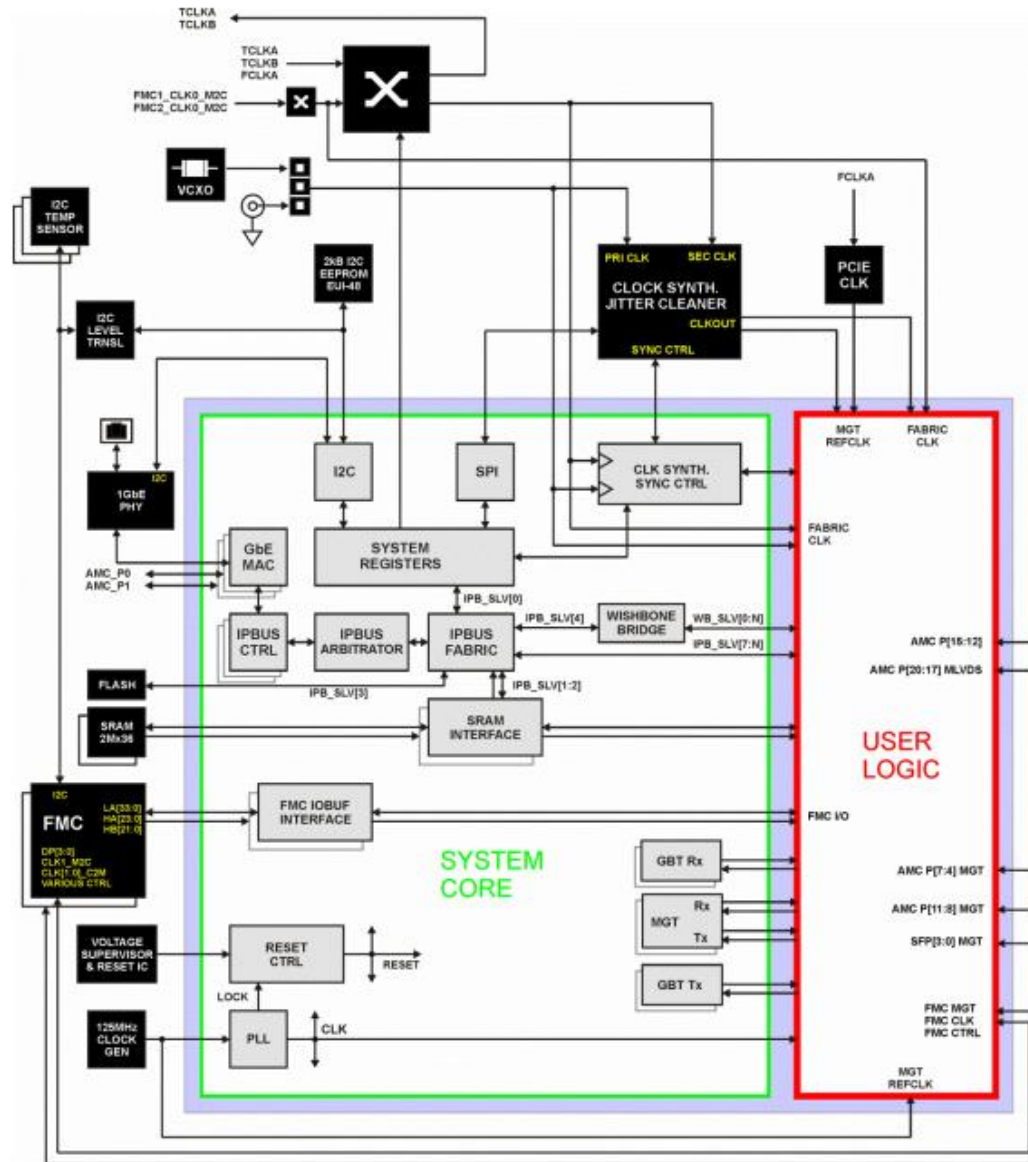


Figure 2-1: Firmware architecture.

Gigabit Link Interface Board (GLIB) Ecosystem



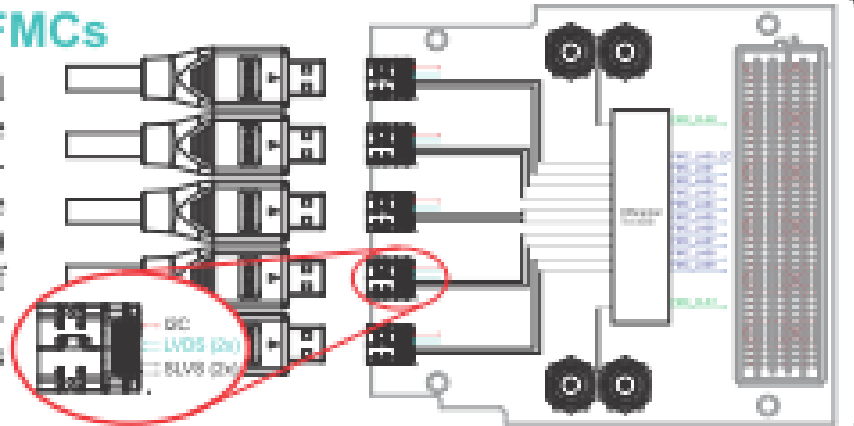
GLIB TTC FMC



GLIB Versatile Link FMC

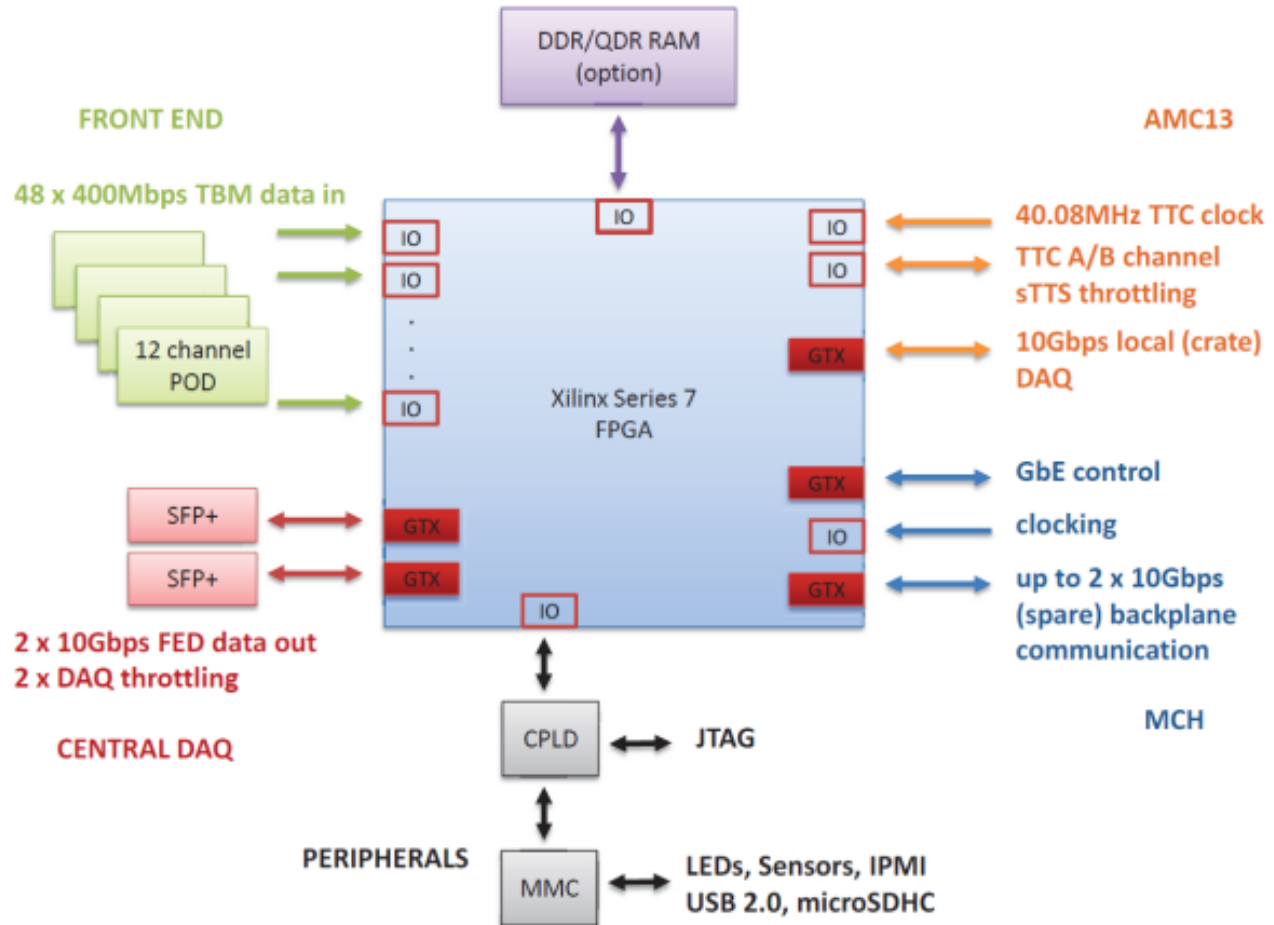
FUTURE FMCs: e-link FMCs

More FMC boards are in conceptual design phase. First in the pipeline are FMCs for interfacing with new-generation ASICs incorporating the new rad-hard electrical link (e-link) such as the GBT. The possibility of designing two different flavors (low- and high-density) of e-link FMC is under consideration.



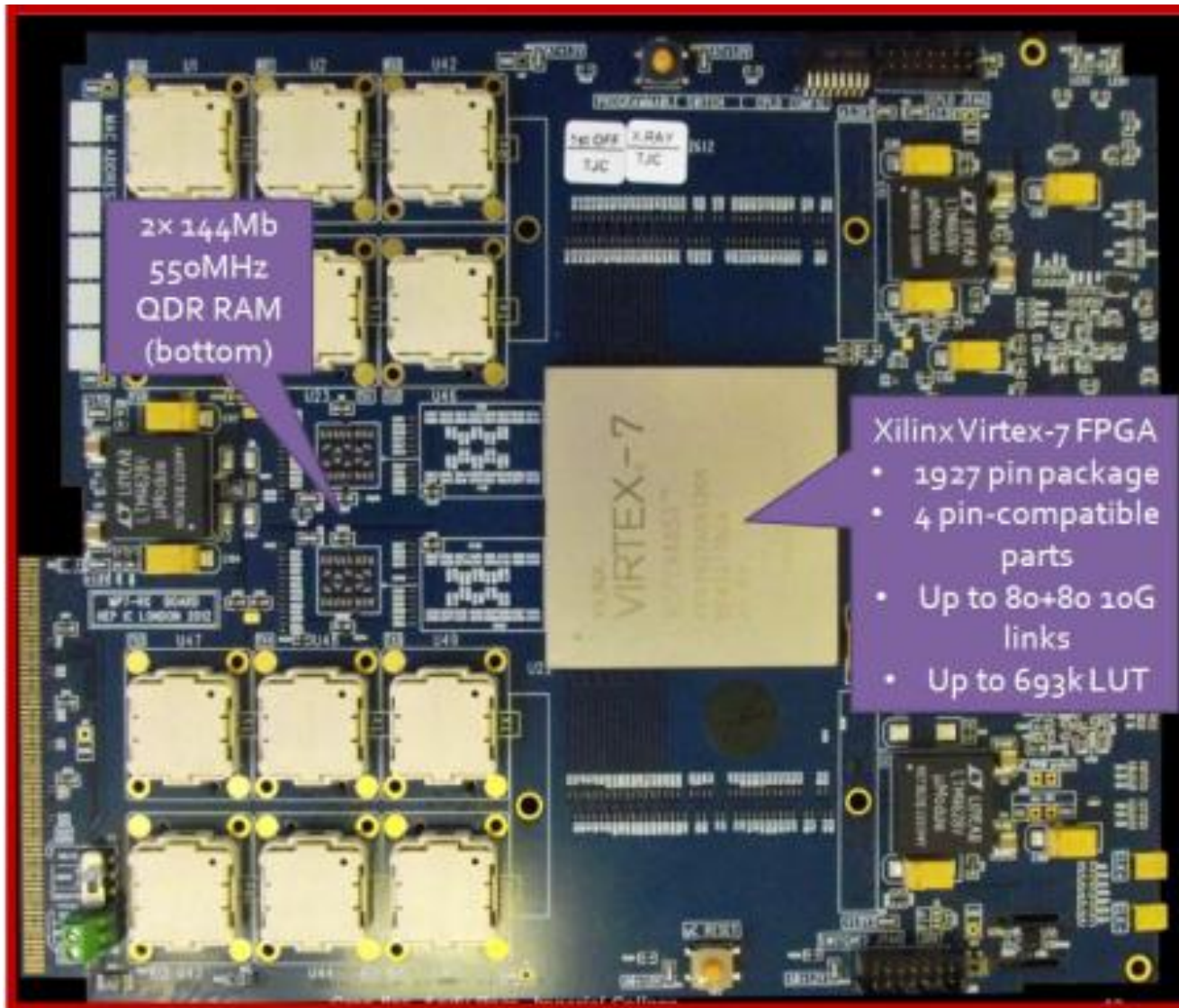
CMS Pixels Phase I Upgrades Front End Data (FED) Board

system interface of prototype will aim to closely match that of final FED
- mainly achievable due to use of mezzanines



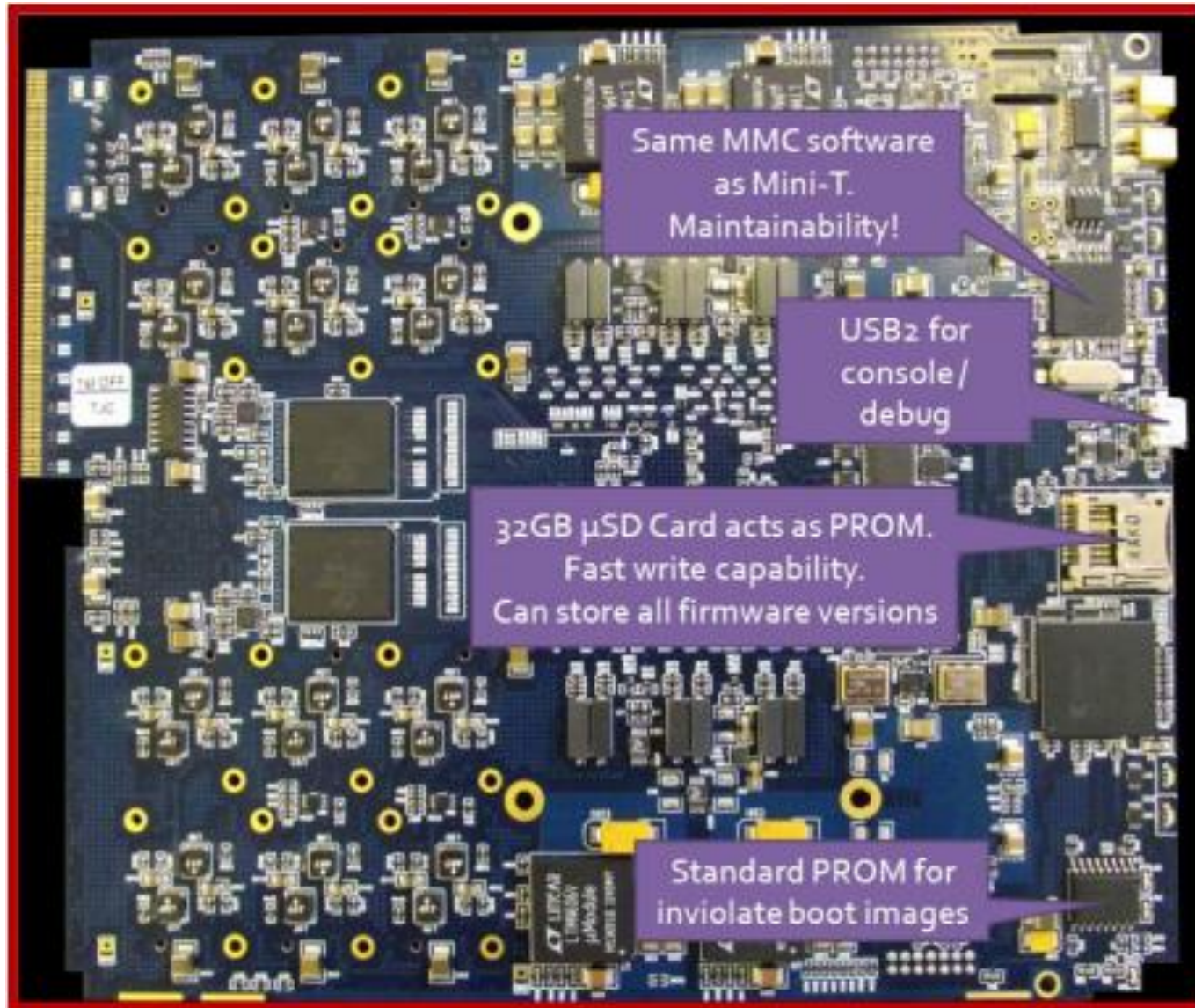
CMS Pixels Phase I Upgrades

Front End Data (FED) Board - Imperial College MP7 Prototype



CMS Pixels Phase I Upgrades

Front End Data (FED) Board - Imperial College MP7 Prototype



CMS Pixels Phase I Upgrades Unified FEC/FED

