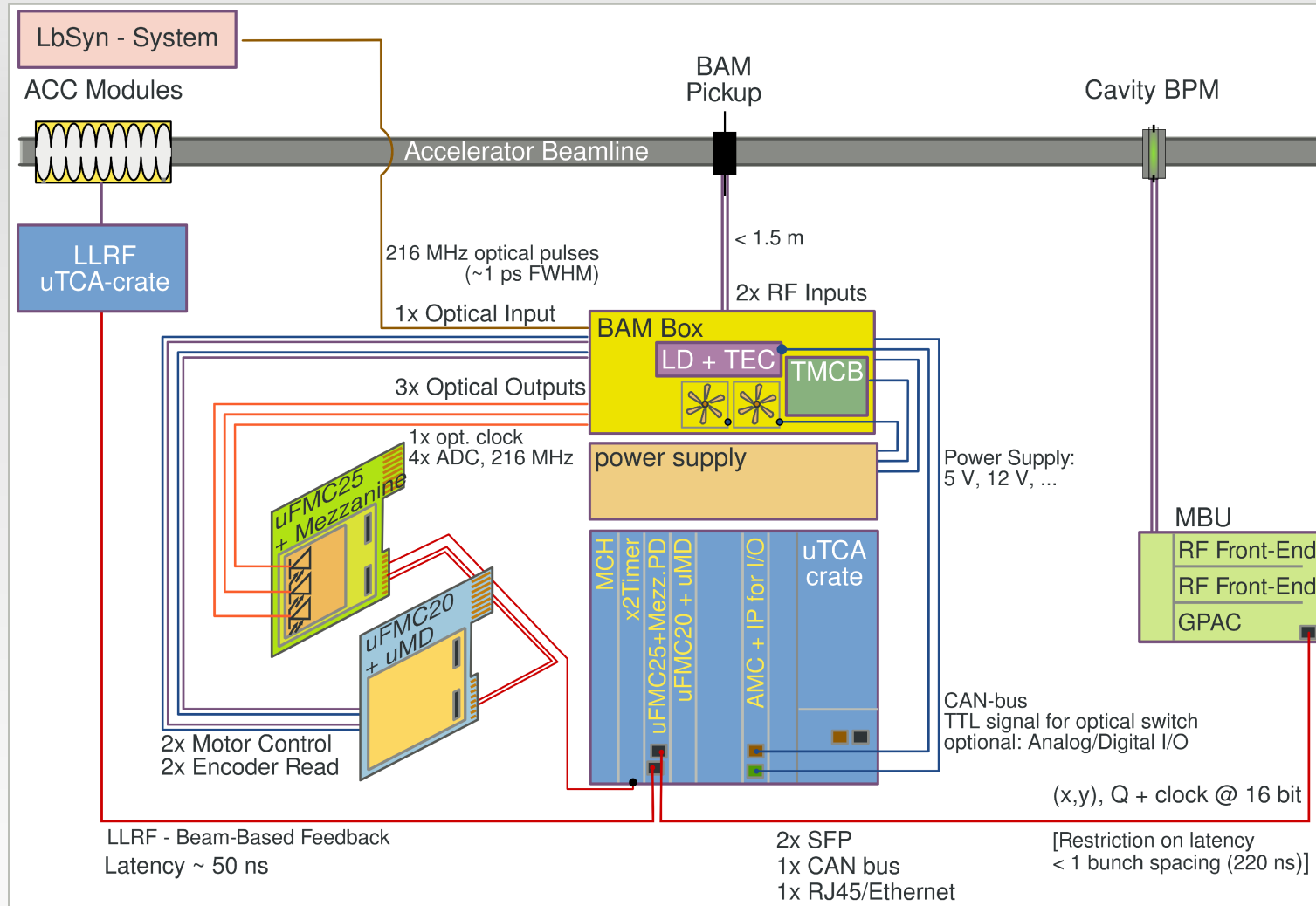# Electronics for the BAM

Bunch Arrival-Time Monitors for the European XFEL

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2013-06-25

BAM Box

Timeline until end of 2013: Installations at FLASH

- **Debugging + basic firmware**

  - on-board: ADC clock gen., laser pulse sampling, signal quality
  - board management within crate (MMC)
  - communication between boards

  start: now
  time required ~ 4-5 weeks

- **Required for first tests (in synch hutch) & BAM specific firmware development:**

  - MTCA crate (+ CPU,Disk, MCH, PS, xtimer) → **reserved**
  - DFMC-DSBAM + FMC25 (debugged version)

  start: w/o beam mid of July
  w/ beam mid of Aug.

- **Required for first implementation in FLASH tunnel – 14ACC7 prototype:**

  - 9U MTCA crate (+ CPU,MCH,xtimer) → **open: timing signal**
  - DFMC-DSBAM + FMC25
  - DFMC-MD22 + FMC20
  - timer2ttl converter box
  - AMC w/ CAN-bus

  planned: installations mid of Aug.

- **Required for upgrade of existing 3x BAMs at FLASH:**

  - MTCA crate (+ CPU,MCH,**x2timer**)
  - DFMC-DSBAM + FMC25
  - DFMC-MD22 + FMC20

  planned: as soon as servers ready