

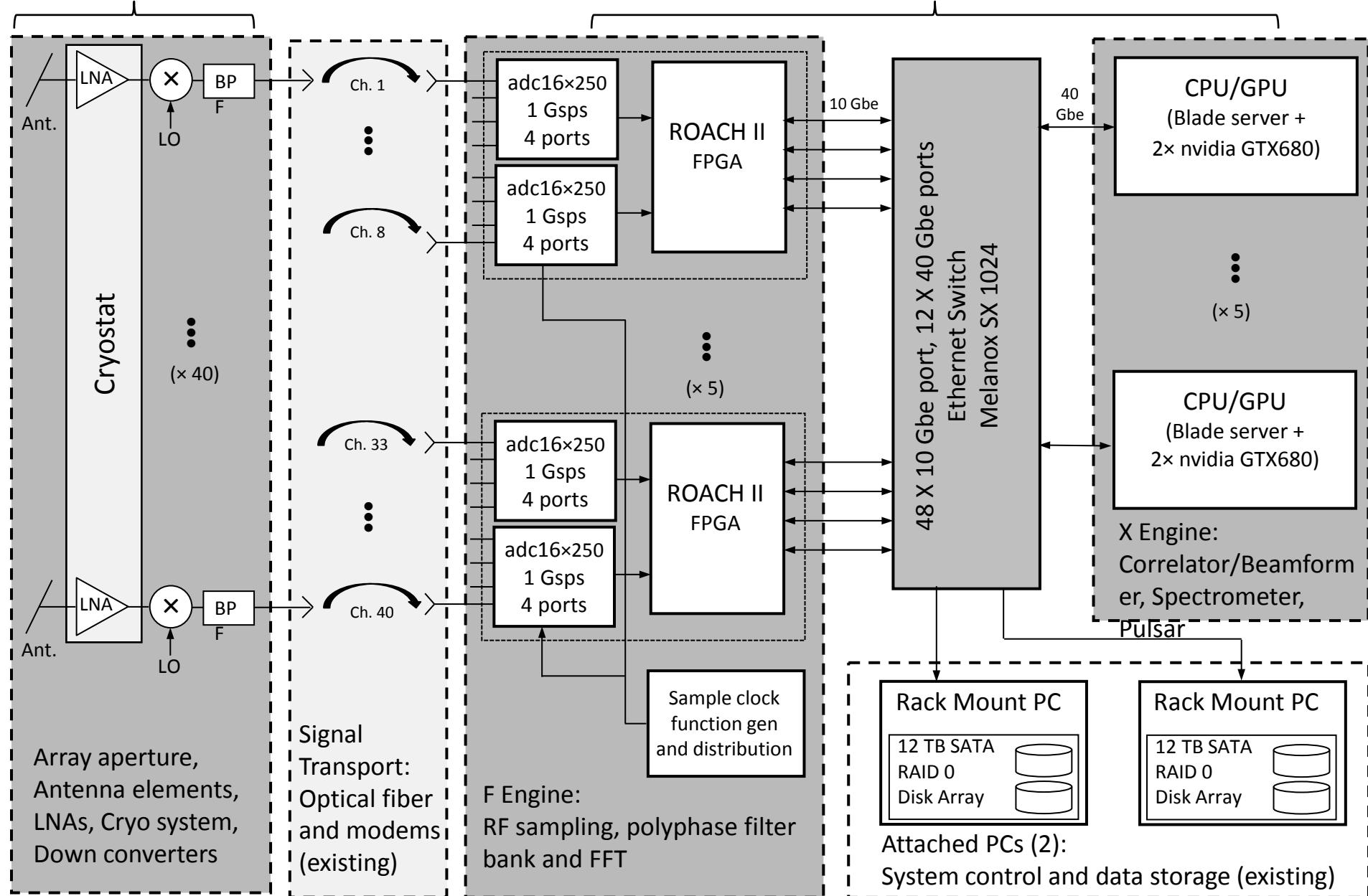
Updated proposed architecture

Analog RF over fiber signal transport.

Increased switch and IP interconnect capacity.

Front End (GBT)

Back End (Jansky Lab)

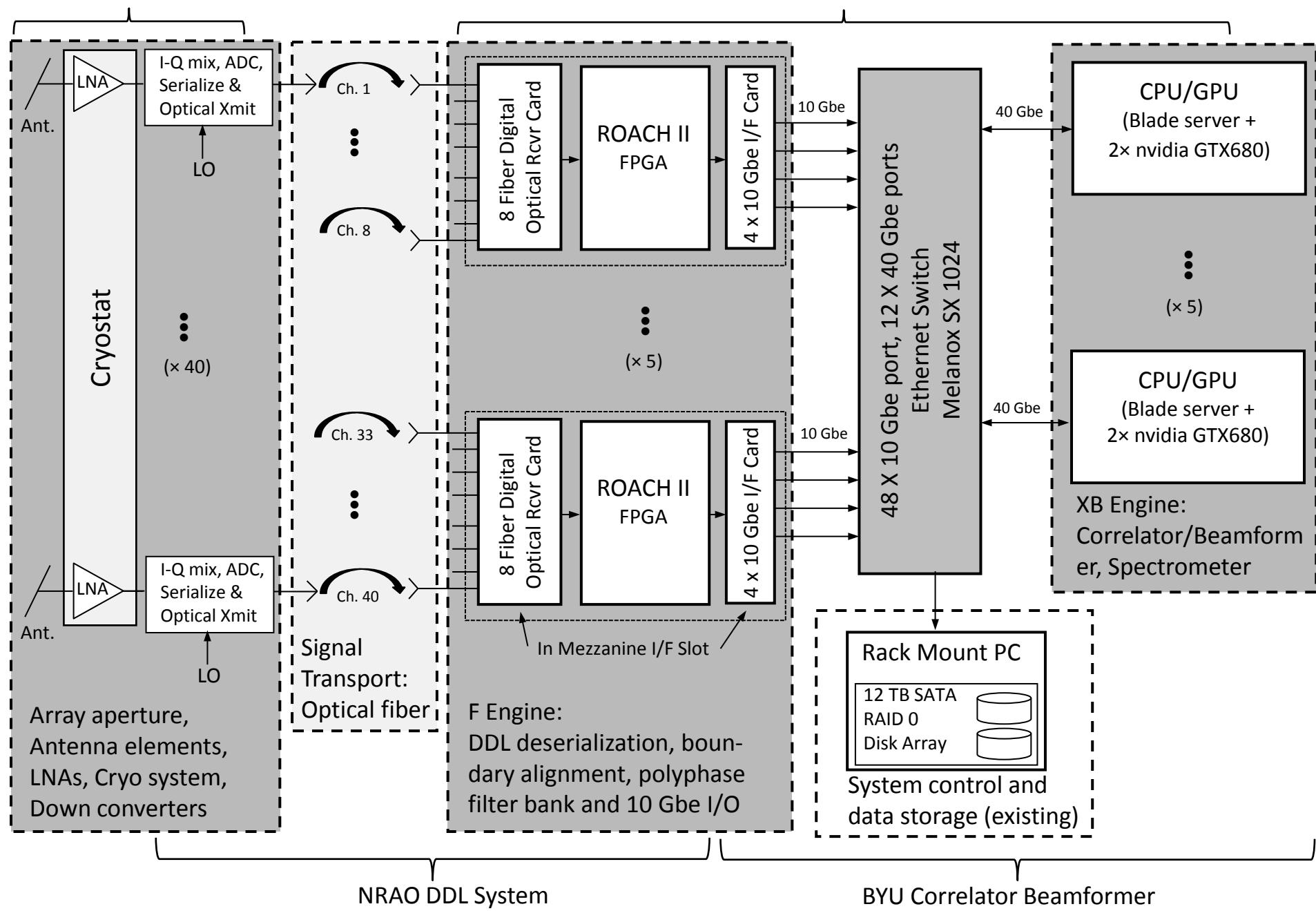


DDL 150 MHz System

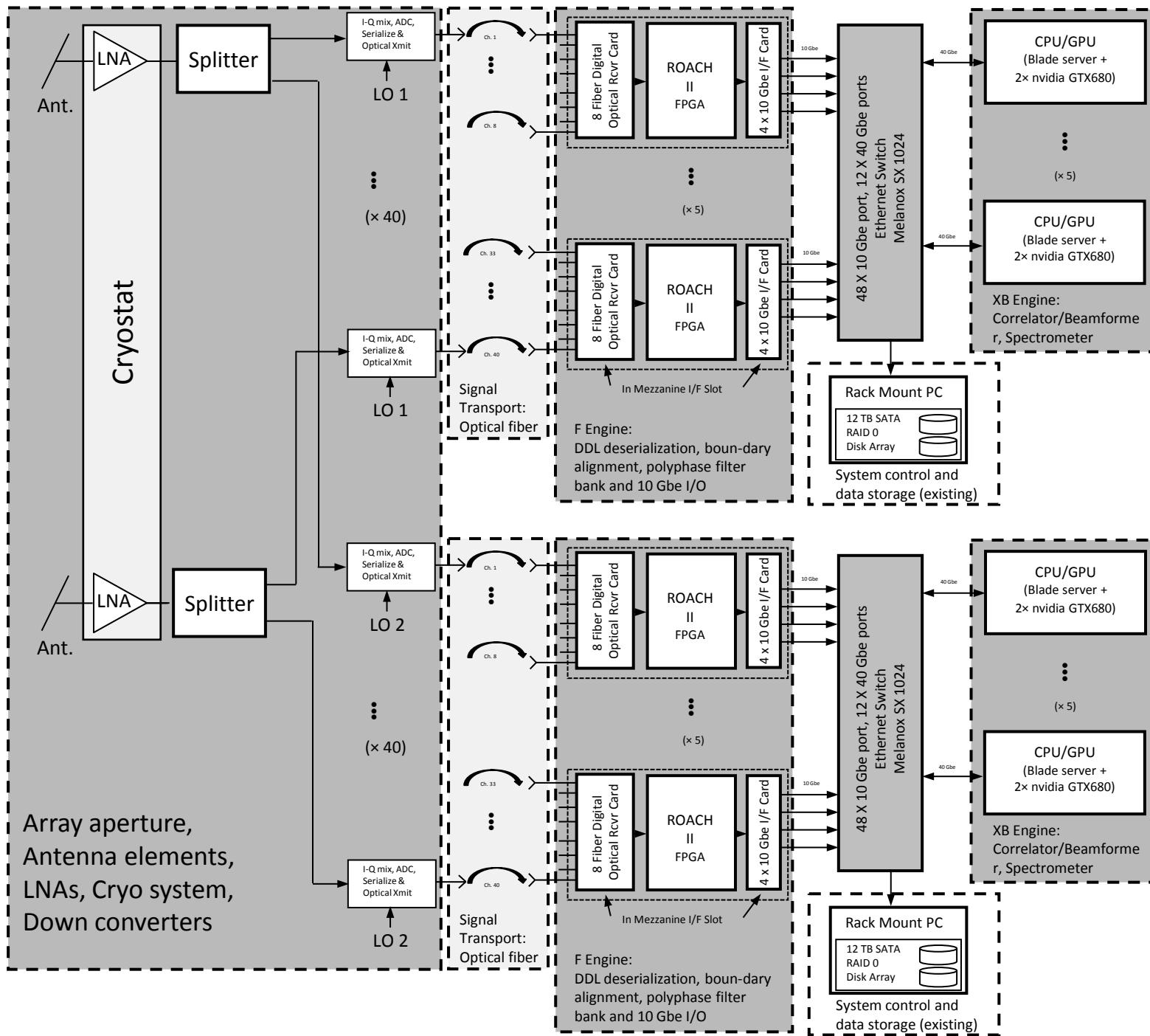
NRAO digital signal transport over
optical fiber.

Front End (GBT)

Back End (Jansky Lab)

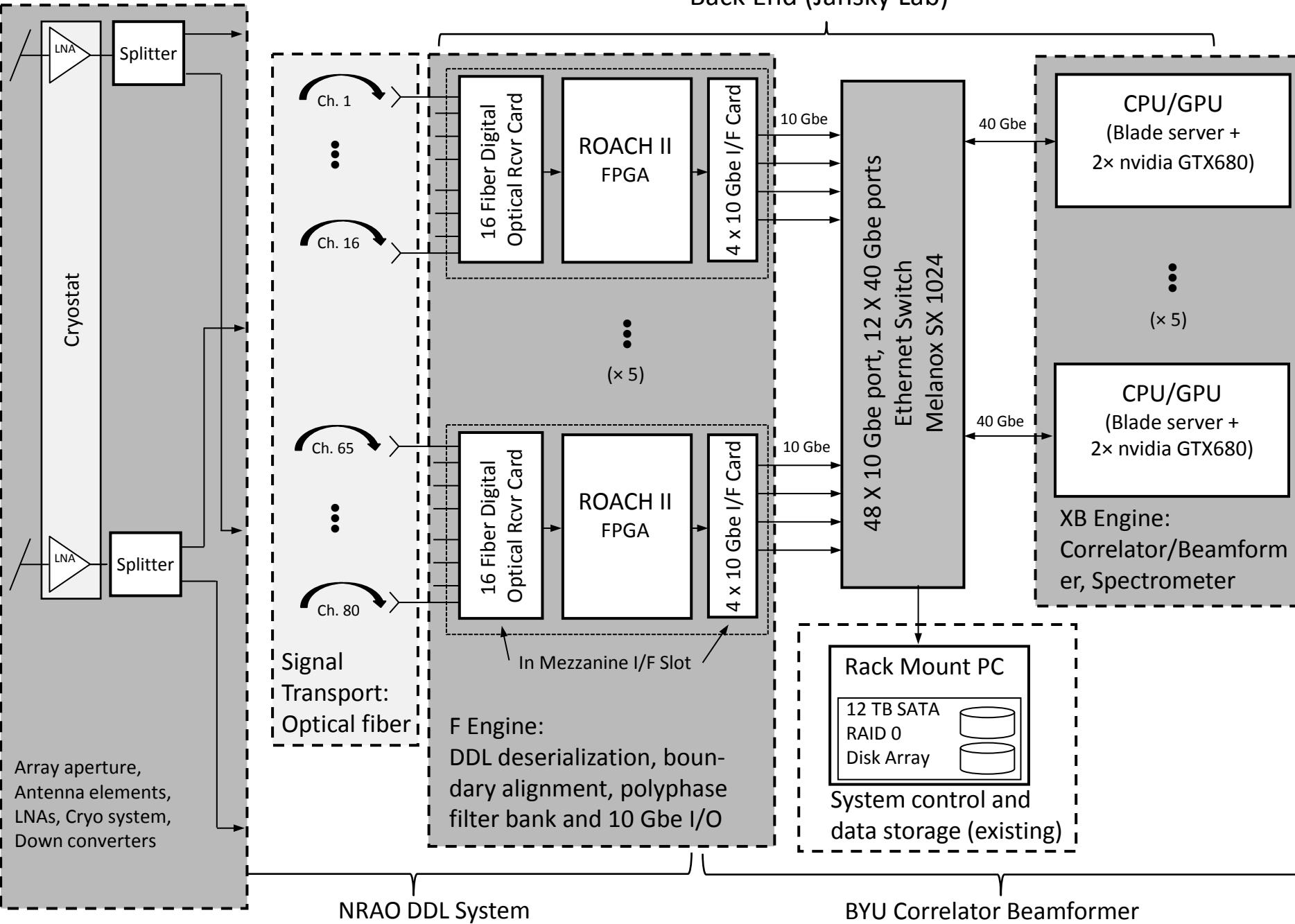


300 MHz upgrade, Option A



300 MHz (almost), Option B

Back End (Jansky Lab)



Comments

- BYU has 3 Roach IIs on hand, budget for 2 more, including 4 X 10 Gbe mezzanine cards.
- Both 300 MHz options support UMASS 64 element mm-wave experiment.
- 300 MHz option A has no software/firmware development costs, but doubles hardware.
- Option B has greatly reduced hardware costs, but some firmware/software upgrades and ~ 280 MHz BW. ROACH and GPU computational capacity needs to be evaluated.