HF Readout Packaging

• 3U option:
  + No new active circuits to design/debug
  + Cheaper
  – No space for connectors
  – Engineering needed for:
    • Readout card layout mods
    • Backplane layout
    • Power distrib., packaging, cooling, etc.
    • I/O connectors/cabling
  – Uses special readout cards
  – Need special test crates

• 9U option:
  + Standard crates:
    Packaged, powered, cooled
    DCS interface, safety features
  + Space for connectors
  + Test/debug in standard crate
  + Uses standard readout cards
  – More expensive
  – Engineering needed for:
    Carrier PCB layout
    I/O connectors/cabling
HF Readout Packaging

• Costs as presented:
  – 3U: $57k M&S only (low?)
  – 9U: $170k M&S only (high?)

  Real difference is probably
  Quite a bit less. EDIA must be
  Included to know for sure.

• Open issues before decision:
  – Who does engineering? Need a cost estimate for EDIA
    in each case
  – If FNAL will commit to providing 3U readout cards
    and a complete 3U backplane design, then 3U is an
    attractive option.
  – Otherwise, no comment until we do EDIA estimates in
    detail for both schemes