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?)

• 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

Real difference is probably quite a bit less. EDIA must be included to know for sure.