EVLA LO/IF
Racks/Bin/Modules

Michelle Jenkins, Mechanical Engineer
• Modules and bins common to vertex room and CEB
• CEB racks are standard 19” equipment racks
• Vertex room racks are VLA B-Racks
LO/IF Rack

- Plascore® honeycomb panels used for RFI shielding
LO/IF Bin

- Reusing VLA bins
1 Wide Module

- Building on AT design using VLA Dimensions
- Extrusions & panels utilizing RFI gasketing
1 Wide Module

- Same design with heatsink
- Requires the same bin space as a double wide
2 Wide Modules
• Designed to house synthesizer
• Optional center panel for multiple layer component mounting
• Provisions for heatsinking Yig oscillator with hole through module for airflow over heatsink
• Heatsink gasketed to provide RFI seal
Questions??
EVLA DTS/Sampler Rack/Bin/Module

Michelle Jenkins, Mechanical Engineer
Digitizer/ DTS

• Completely new design
  – Integrates digitizer, samplers, and IF DTS into single package
  – Designed specifically to address RFI and Thermal Issues
• Panels 100% welded to frame
  – Vibration stability
  – RFI
• Plexiglas door to protect fiber connections
• Dimensions
  – 32”H x 30”W x 26”D
DTS Rack

- Gasketed filters
  - UAF with internal foam barrier
  - Spira™ honeycomb
- Rack sits on base for air flow reasons
- All fiber runs to fiber mux inside the rack
• Follows design of VLA bin
• Gasketed faceplate added for RFI seal
• Dimensions
  – Faceplate 11.25”H x 26.6”W x .125”D
  – Body 11”H x 25”W x 20.25”D
DTS Module

- Solid outer case
  - RFI sealed
  - Spira™ filters
- All connections on module front panel
- Dimensions
  - 10.46”H x 6.17”W x ~19.95”D
Module Internal

- Slides in/out of solid case
- Center plate provides module stability
- Heat-producing components mounted to center plate
- PCBs connected by internal backplane
- Stand-offs provided to support module on bench during maintenance
• Welded single-piece construction
• VLA guide blocks
• Gasketed filters mounted top & bottom
Questions??