

# Higher Performance Boards

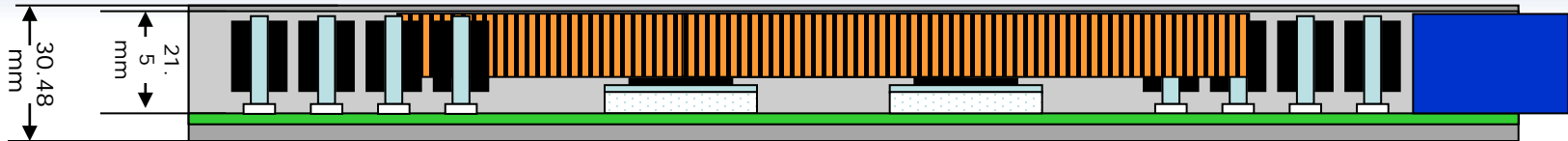
Kevin Bross

Intel

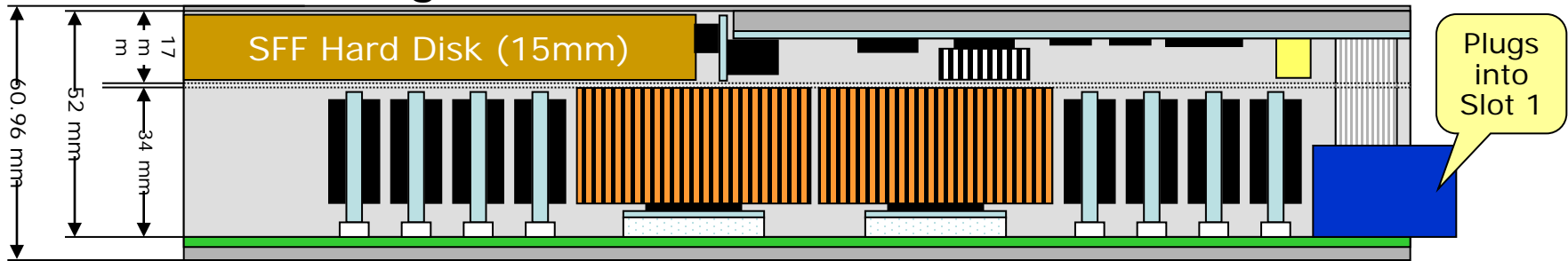


# Double-Wide Boards

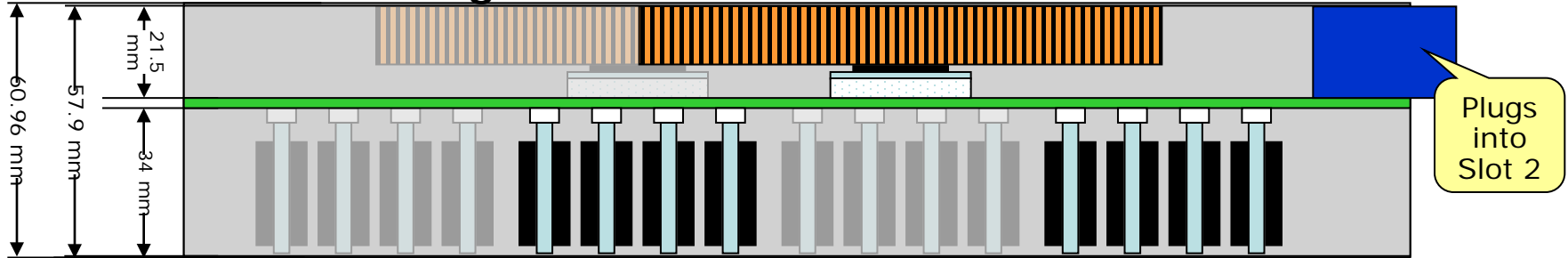
## Single-wide Board (Typical)



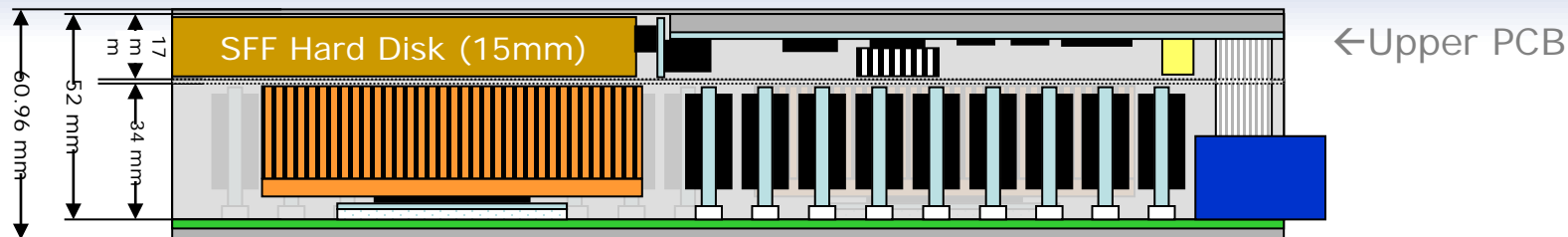
## Double-wide Left-aligned Board



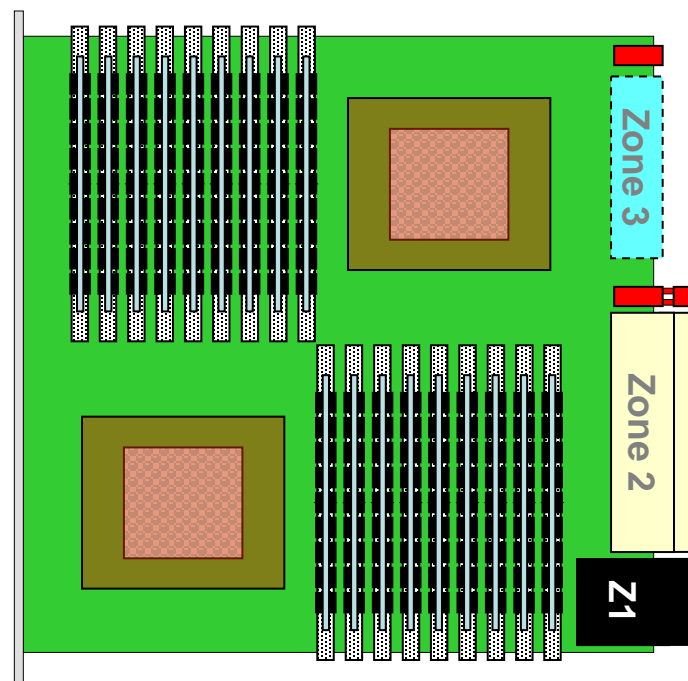
## Double-wide Center-aligned Board



# Double-Wide Board Concept



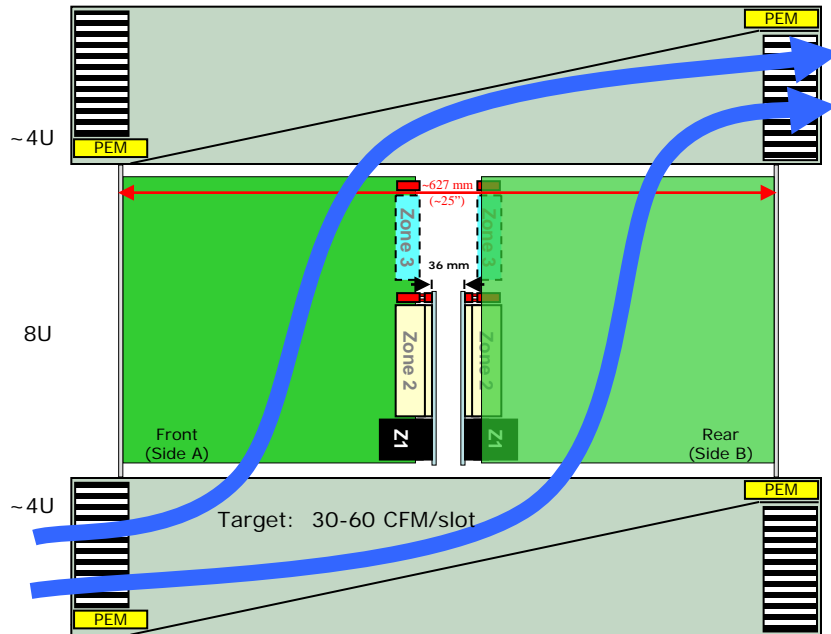
- Increased room for taller heat sinks and memory modules
  - 34 mm z-height is typical 1U component height
- Power bricks, hard disks, and mezzanines may be on upper PCB
- Double-wide pitch allows 60-120 CFM total airflow
  - Allows higher performance processors to be used in ATCA



Hard Disk and AMCs on Upper PCB

# Double-Sided Shelf Concept

- Could be single backplane or two separate backplanes
  - Single backplane could be optimized for double-wide blades and share per-chassis infrastructure
- Put server/processing boards on both sides of a shelf
  - New board types: full size Extended Transition Modules and Extended Boards connect across Zone 3



Top-down view

