Agreed design package contribution: Detailed List

A. **Electricals**

Electrical design files contain 4 major components:

- Full System Schematic CAD
  - Such as .dsn file format when using Cadence Orcad Capture / Design Entry schematic design tools
- Full System Board Layout
  - Such as .brd file format when using Cadence.
  - Includes timing constraints and stack-up definition.
- Full System Component BOM
  - Excel Format, listing Reference Designator (Part number on the board), Manufacturer, Manufacturer Part Number, Quantity.
- Manufacturing Files (Gerber files)
  - PCB manufacturing files. RS-274x format.
    - Stack up information must be included (text format) as an art layer in the RS-274x files OR provided as separate readable file (such as .pdf).
  - Pick and Place (text format)
  - Test Point Coordinates and Information (text format), showing test coverage
- Recommended "User Friendly" Files
  - A .pdf version of schematics for easy reading
  - Board component placement map (.pdf or image file)
  - A separated spreadsheet (.xls) of PCB stack-up for easy analyzing

B. **Mechanicals**

Mechanical design files will be requested in both the native format of the 3D CAD design tool used to generate them, as well as a common, neutral format to ensure compatibility with all mechanical CAD tools. The top level assembly will have all subassemblies and parts positioned in their correct locations relative to each other, and will be a complete representation of the top assembly, i.e. multiple instances of components will all be present. All hardware, such as screws / retaining pins, user access components such as thumbscrews, clinch nuts, etc. will be included in their entirety.

- 3D CAD File Format – will include all needed files for a complete top level assembly, including part and subassembly files.

    - Such as .sldasm and .sldprt when using SolidWorks
- CAD-neutral File Format
    - Such as .step/.stp and IGES formats (solid, and all components in a single top level assembly)