

ECT Smart File processing: CAD software packages supported

CAD System	Required File Types
Academi	Outline.ACA, Part.ACA, Wiring.ACA, Artwork.ACA, Job.ACA
Accel	Sample.PCB
Ariadne	Ariadne.pca
Cadence (Cadence/Allegro)	<ol style="list-style-type: none"> 1. Sample.CAD (Sample.VAL), which is generated with the specific Fabmaster output script the script instructs the user to name it with the .VAL extension however it is most often saved with the .CAD extension 2. Sample.PAD, Sample.RTE, Sample.brd, Sample.sym (All four Files) 3. **We can also read in the GenCAD output from Cadence which is also a Sample.CAD file
Cadnetix (VeriBest, Inc.)	Sample.DOS
Cadstar (Zuken Redac)	Sample.PAF
Calay	Sample.PCB
Cv (INCASES)	Sample.ATE, Sample.TL
DDE_ECAD	Sample.IPL
DeDale	Sample.DAT, Sample.FGG, Sample.FIG, Sample.ROU
DIF	Sample.DIF
Docica (Alcatel)	Sample.DOC
EDIF400	Sample.EDF
FATF	Sample.FAT
GenCAD (Mitron)	Sample.GEN
HP	Sample.DF
HP_EGS	Sample.DF, Sample.a
HPLINK	Sample.HPL
IBM_v4	Sample.DF
IBM_v5 (UniCAD)	Sample.ARC
IntGraph (VeriBest Inc.)	Sample.EIF
Kades	Fabmast.KAD, Sample.DF
Mentor (Mentor Graphics)	Neutral.Vss, PF.Vss, Route.Vss
OrCAD	Orcad.asc
OrCADw	Sample.min
Pads	Sample.asc
PCAD	Sample.pdf
Prisma	Sample.cxf
Protel	Sample.PCB
Protel3	Sample.pcb
Redac (Zuken Redac)	Sample.CDI
Scicards (Encore PCB)	Sample.REA
Tango	Sample.PCB
Ticas	COMPOSAN, ticas.asc
TopCad (Mentor Graphics)	Sample.TXF
Ulti_brd (UtilBoard)	Sample.DDF
UPIP	
U-Test	
Vanguard (Sophia systems)	GPADS.LIB, Sample.DRW, Sample.LIB
VCAD	Test.VCA
VisCADif (Zuken Redac)	Sample.PAF
Vutrax	Sample.ART
Zuken (Zuken Redac)	Sample.BSF, Sample.CCF, Sample.MDF, Sample.UDF
Zuken5 (Zuken Redac)	Sample.ftf, sample.pcf

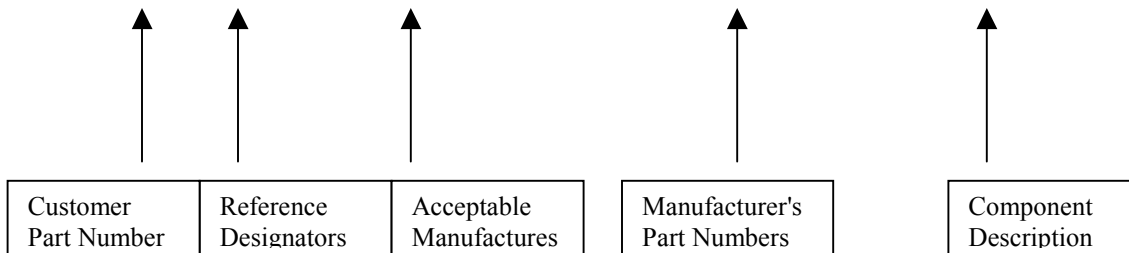
ECT Smart File Processing: BOM Formatting Requirements

To achieve the full benefits of the ECT SmartFile process, two(2) files are required. The first is an output from the original Printed Circuit Board Assembly (PCBA) CAD designs. The second, is a Bill of Materials (BOM) the shows the components for the PCBA. The BOM will detail all the components that will be loaded onto the PCBA. It is very important to have component information to assure a high quality fixture.

To have an accurate link between the supplied CAD and BOM, the supplied BOM **MUST** have several key fields present. The fields are:

- Customer Part Number
- Reference Designator(s)
- Component Manufacture(s)
- Complete Manufacturer Part Number
- Component Description

This information should be provided in an ASCII text format. Each of the fields should be separated by the symbol (|). This is the symbol above the back slash on most keyboards. If several different



manufacturers' part numbers area acceptable as substitutes, all components should be listed. Each different manufacturer's part number and the corresponding manufacturer should be separated by a comma (,). Similarly if a customer part number represents several different components, than each reference designator should be separated by a comma (,). An example of this format is shown below.

123456|R1,R2,R5|Phycomp, Panasonic|06032R104K7B20D, ECJ-2YF1A475Z|0.1 uF Cap 0603

Formatting Notes

- The total number of characters in any line may not exceed 2048. If required you can repeat the *Customer Part Number* on a new line and double the other information.
 - 40|R301,R305,...,R320,R324,R339|10|ERJ-3GEYJ100V|PANASONIC|RES 10 OHM 5%-0603SMT
 - 40|R343,R358|10|ERJ-3GEYJ100V|PANASONIC|RES 10 OHM 5%-0603SMT
- Reference designators may have ranges identified as well as comma-separated values.
 - R1-R10, R12, R13, R15-R100