

Manufacturing Assumptions:

- Cirtronics Corporation utilizes IPC-A-610 as our in-house workmanship standard. Special requirements relating to manufacturing and/or quality should be referenced on our quotation and the customer purchase order.
- For all Design related specifications please refer to QMS Doc Id W3.
- Boards are soldered using organic acid, water soluble flux and cleaned using a closed loop aqueous system. **Parts that are not compatible with these processes should be specified on the customer-supplied document at i on.** Cirtronics prefers to utilize “no clean” fluxes on secondary operations.
- Cirtronics warrants our workmanship to be free of manufacturing defects for up to one year from the date of manufacture. This excludes failures due to design problems or customer supplied components.
- Customers are liable for excess materials on turnkey orders due to cancellation, obsolescence, minimum buys, and standard order quantities exceeding order requirements.

Documentation Requirements:

- **A complete set of documentation is required in electronic format per the table below for quote and manufacturing.**
- Documentation for each assembly should have it’s own folder or Zipped with it’s respective files.
- Documentation must clearly state to which Class of IPC-A-610 the bare boards and assemblies will be manufactured.

Items Needed	Used for	Suggested Zip Name	File Types	Cirtronics Reader Software
Gerber Data	-Bare Board Fabrication -Stencil Fabrication	(Assy)_Gerbers.zip	HPGL, HPGL/2, 274, 274X, Fire 9XXX, Orbotech, Barco DPF, IPC-D-350/ IPC-D-356	Cam350, CircuitCam, ViewMate
Cad Data	-Machine Programming -Doc Generation	(Assy)_Cad.zip	Standard ASCII format: PADS, GENCAD, ALLEGRO, PROTEL	Aegis
Assy Drawings	-Manufacturing -Inspection -Test -Programming	(Assy)_Drawing.zip	*.Dxf, *.dwg, *.bmp, *.jpg, *.tif, *.pdf, *.plt	Cadviewer, IE Explorer, Acrobat Reader
Fab Drawings (Drill)	-Bare Board Fabrication -Bare Board Inspection	(Assy)_FabDrawing.zip	*.Dxf, *.dwg, *.bmp, *.jpg, *.tif, *.pdf, *.plt	Cadviewer, IE Explorer, Acrobat Reader
Schematics	Troubleshooting and test	(Assy)_Schematic.zip	*.dxf, *.dwg, *.bmp, *.jpg, *.tif, *.pdf, *.plt	Cadviewer, IE Explorer, Acrobat Reader
Test Procedures	Testing	(Assy)_TestProc.zip	*.txt, *.doc,	Notepad, MS Word
BOM with Ref. Des, Mfr Pt Num and description, QTY	Purchasing Manufacturing and Insp	(Assy)_Bom.zip	Txt: Fixed Column or Character Delimited (Do not wrap fields within same column). Excel: Make sure all information in single row.. Ok to wrap text within same field I.e. All 240 Reference Designators, for a particular Part #, can be all in single field.. Part Number must be same for each Ref Des..	Notepad, MS Word, MS Excel, Wordpad
Labeling Information	Manufacturing Traceability	(Assy)_Label.zip	*.txt, *.Pdf, *.dwg, *.bmp, *.jpg, *.tif, *.pdf,	Notepad, MS Word, MS Excel, Wordpad
ECO/Special Instructions must be delivered with an Updated BOM	Mfg and purchasing	(Assy)_Eco.zip	*.txt, *.doc, *.xls	Notepad, MS Word, Wordpad, Excel
AVL	Purchasing	(Assy)_Avl.zip	*.txt, *.doc, *.xls	Notepad, MS Word, MS Excel, Wordpad
Sample Golden Bd.	Manufacturing, Test	N/A	N/A	N/A

Failure to supply all necessary documentation may affect pricing and delivery originally quoted.

Additional Information

- Quote packages and Purchase Orders must include the following:
 - a. Revision level
 - b. Functional and/or in-circuit testing parameters
 - c. Special tooling requirements
 - d. Source inspection or submission of a first piece sample for approval
 - e. Quantity and release schedule
- For Consignment Kits, Cirtronics will not proceed on kits that have shortages unless written permission is given to either “ship short” or to charge back for installing as a secondary operation. SMT and Through Hole components should be furnished for auto insertion, and in good condition to prevent damage from ESD, moisture, and/or physical breakage. Parts should be delivered in the following preferred package: Smt- Reels and/or Tape strips with at least 4” of leader. Thru-Hole (Auto Inserted) Parts are to be in Tape/Reel and/or tubes. Loose Parts received in bulk may result in a price adjustment. We request a 3% overage on Class “C” through hole components and 5% overage on Class “C” surface mount components. Class “C” components are defined as in-expensive caps, resistors, diodes, etc. Reasonable overages should be provided on all other components to prevent in-process shortages. A new set of documentation should be provided with each kit.
- All Labeling Requirements should be defined during Quote Process to assess proper labeling stock and location on the PCB.
- We will ask for participation in our reusable packaging program or boards will be packaged in individual ESD bags, in corrugated boxes, with packaging materials to prevent damage in shipment. Delivery arrangements are made with UPS, our Company van, or special instructions requested by the customer.
- Customer specific Packaging requirements must be communicated to Cirtronics at time of Quote for Material cost & Availability.