



# Helpful Guidelines for Quote and Build

## Overview

The following guidelines are intended to provide a brief outline of Dorigo Systems Ltd. requirements for preparing quotations and for becoming “production ready”. While some of the points below would not apply to turnkey manufacturing, they are included to provide a reference to all Dorigo customers. For a complete listing of all DFM (Design for Manufacture) guidelines, please contact our Process Engineering Department.

## Quotation Requirement Guidelines

- Quantity to be quoted, and schedule requirements. Please include EAU if recurring project.
- Complete BOM (Excel format) including manufacturer part numbers, part description, your part # (if used), approved alternatives (if any), reference designators and quantity per line item.
- Complete Gerber files.
- Layout drawing that shows the location of the various reference designators.
- Assembly or mechanical drawings (if required) for top-level PCB, mechanical or final assembly.
- Test/burn-in procedure showing all equipment used (if required).
- Any applicable notes, such as parts to omit, special considerations, etc.

## Production Requirement Guidelines

- Up-to-date (final) versions of all the items listed above.
- Special instructions, modifications, or different population options. eg. different speed SRAM's
- Assembly drawings if there are any build features that are not explained by the layout drawing. eg. Component ID is on one side of board, but part is actually to be placed on the other side; any parts that should have a maximum height from the board; maximum pin length, etc.
- Panelized paste files and panel outline (if bare board is panelized).
- X-Y data file including coordinates of all fiducial marks.
- Fiducial marks (both global and local) greatly speed-up and aid the manufacturing process. Please contact Dorigo Process Engineering for details of our specifications.
- For customer provided kits, low value SMT parts should be provided with 4% excess please.
- More expensive parts should also be provided with some allowance for bent pins, component supplier miscounts, etc.
- All SMT parts should be on tape and reel. If kit is small, and a reel is not available for SMT parts, then please ensure that cut tape is supplied in one continuous length. (eg. 100 pcs R1 0603 10K 5% is very difficult to handle if received in 10 strips of 10 resistors.)  
NOTE: Even cut tape should be provided with 4% excess allowance.
- On customer kits, please ask your bare board vendor to include a “solder sample” blank PCB.
- Please provide kit list (or packing slip) with the kit. If shortages are known, and are DNP (Do Not Populate), please indicate on the kit list. If substitute parts are supplied, please indicate on kit list.
- Please clearly label each box supplied with Company name and Board/Project name.
- Clearly labeled parts within each kit are also extremely helpful. eg. part #, quantity, etc.

***These guidelines will make your boards easier to build, and we appreciate every effort you can make to accommodate these suggestions. Please note that Dorigo prides itself on flexibility and superior customer service, and we will work with you regardless of the state of your quote or kit. Talk to us and see!***