

PCB FABRICATION - JOB ESTIMATE WORKSHEET

(Please fill out one sheet for each job, attach copies of artwork and fax to ScanCAD)

Bill To: Company Name: _____ Address: _____ _____	Ship To: Company Name: _____ Address: _____ _____
Contact: _____ Title: _____ Phone #: _____ Ext: _____ Fax #: _____ E-Mail : _____	Contact: _____ Title: _____ Phone #: _____ Ext: _____ Fax #: _____ E-Mail : _____

Project Name/Number: _____ Board / Stencil / Artwork Size: _____ " x _____ "

Customer will Supply: (circle what applies)

- | | |
|--|--|
| A) Artwork / B) Films / C) Stencil / D) Actual Board | For Actual Board: Can the board be destroyed? Yes <input type="checkbox"/> No <input type="checkbox"/> |
| E) Bill of Materials (BOM) / F) Gerber Files | Note: Non-destructive process is much more expensive |
| | For Actual Board: Is the board populated? Yes <input type="checkbox"/> No <input type="checkbox"/> |
| | Note: Additional fee to remove components will apply |

PART 1: RE-ENGINEER TO GERBER AND DRILL FILES ONLY (Also fill Part 2 if component info, schematic, and/or other outputs are desired)

Total Number of Layers: _____	# Padmaster Layers: _____	# Soldermask Layers: _____	# Drill File: _____
	# Circuit Layers: _____	# Silkscreen Layers: _____	# Drill File ONLY: _____
	# Ground Plane Layers: _____	# Thermal Layers: _____	
	# Stencil Layers: _____	# Others: _____	

DESIRED OUTPUTS - (Circle to choose as many as apply):

- Gerber 274x file (each layer)**
Padmaster
Soldermask (swelling _____ mils)
Silkscreen (Choose 1)
 Short Vector Fill: (rough finish)
 Manual Edit: (type finish)
Drill File
 Inch / Metric (circle one)
 Excellon
 Sieb & Meyer: 2.1 ___ 2.5 ___ 3.5 ___

- Stencil (shrinking _____ mils)**
TIFF (of Raster image)
Panelize
 # of Panels: _____
 X: _____ Y: _____
DXF
HP-GL

- SPECIAL REQUESTS:**
Pads on Grid
 Grid Size (mils): _____
 Threshold (mils): _____
Design Rule Check
 Threshold (mils): _____
OTHERS: _____
Dimensions to Specs.

For Stencil-only jobs: Component Side Gerber Format: _____ SMT _____ TH _____ Both _____
 Solder Side Gerber Format: _____ SMT _____ TH _____ Both _____

(circle what applies) Include: Fiducials ; Physical Edge Only ; Panel Outer Edge Only ; Panel Edges

OUTPUT MEDIA:

DISK: CD / Email Email address: _____

PART 2: COMPONENT PROGRAMMING INFORMATION
(Part 1 is to re-engineer to Gerber and drill files only)

CUSTOMER INSTRUCTION INFORMATION:

Board Zero/Zero Point: *Customer must attach a photocopy of board with correct board orientation and 0,0 indicated on drawing for both sides.*

Component Rotation Information Sheet: *Customer must provide component rotation and pin 1 information. Complete and return 'Component Rotation Information Sheet' below.*

Circle all information needed:

Inch

Metric

P & P Component Side (Choose one)

SMT

THRU-HOLE

Both (SMT and TH)

P & P Solder Side (Choose one)

SMT

THRU-HOLE

Both (SMT and TH)

Global Board Fiducials

Hand Assembly Components

X / Y Data generated as Centroids

X / Y Data generated as first pin

AVAILABLE PLACEMENT OUTPUTS - (Choose as many as apply):

SMT Machine(s):

Name/Model: _____

Format: _____

(x/ y, theta, ref. ID, comp. ID, etc.)

Insertion Machine(s):

Name/Model: _____

Format: _____

(x/ y, theta, ref. ID, comp. ID, etc.)

Generic:

Name/Model: _____

Format: _____

(x/ y, theta, ref. ID, comp. ID, etc.)

OTHER AVAILABLE OUTPUTS - (Choose as many as apply):

IPC-D-356A / ODB++ / BOM / FATF / SCHEMATIC

OUTPUT MEDIA:

DISK: CD / Email Email address: _____

Part 2 Cont'd. Customer information for component programming

Please note: Providing the following items will reduce the total quotation price:

BOM (Bill of Materials) - in format specified below:

- ASCII Files – in space delimited format
- MSEXCEL

Header:	Company name, Filename, etc.		
Title Bar:	<u>Part #</u>	<u>Reference ID #</u>	<u>Package ID</u>
	Amkor-123456789	U1-U7,U25,U29	SOIC8
	123456789	R56,R57,R60,R64	RES
	Intel-987654321	U1	PLCC28
	456789123	Q1-Q50,Q25,Q29	SOT23

Please Note:

- 1) There must be a part # on each line in front of the Reference ID # group
- 2) There must be a letter in front of every Reference ID #
- 3) Please do not include any additional information

Examples format that is unacceptable:

Header:	Company name, Filename, etc.	
Title Bar:	<u>Part #</u>	<u>Reference ID#</u>
	1234567789	R1 – R17,R25,R29, R56,R57,R60,R64
	987654321	U1
	456789123	C1-50,C 25,C29

- Aperture Table (if supplying Gerber 274D format) - in format specified below:

Header:	Company name, Filename, Format-(mm, mils), etc.			
Title Bar:	<u>D-code</u>	<u>X-Dimension</u>	<u>Y-Dimension</u>	<u>Shape</u>
	D10	0.14		Draw
	D70	2.00		Square
	D38	2.25	0.65	Rectangle
	D89	7.50	0.50	Rectangle

Please Note:

- 1) In the Aperture table, the decimal points in both the X and Y dimensions must line up vertically.
- 2) Each D-code needs a "D" in each column in front of each D-code.
- 3) Please do not include any additional information

Fill out and send back to ScanCAD:

- Photo of board. On the photo, please note the following information:
 - a. **Proper board orientation**
 - b. **Board 0/0 point**
 - c. **Board X/Y directions**
 - d. **Location of board fiducials**
- Component Rotation Sheet, including:
 - a. **Proper component orientation**
 - b. **Clockwise OR counterclockwise**
- Name and sample of the required machine output.

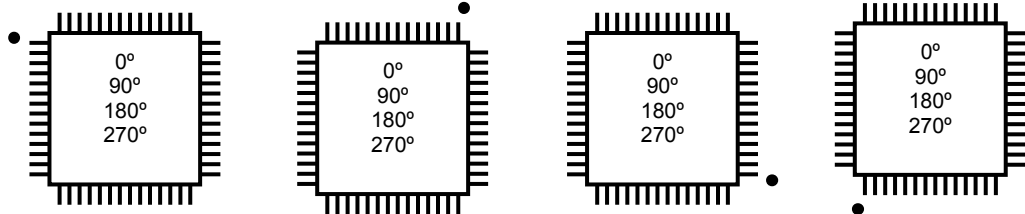
All of the above information is needed to complete the job in a timely matter. Any changes to the original Gerber files will result in extra cost.

COMPONENT ROTATION INFORMATION SHEET

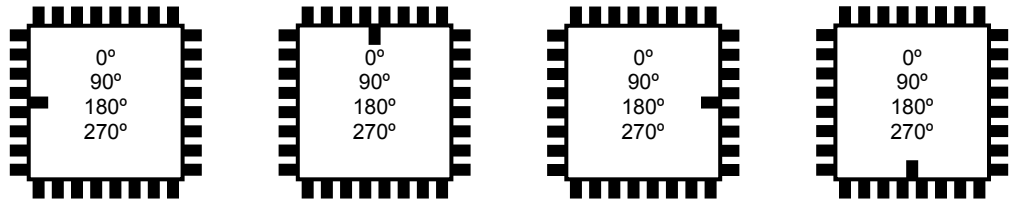
Please circle the correct rotation for each kind of component. For electronic copy, place an "x" in front of rotation.

Note: One "Component Rotation Information Sheet" must be filled out for each individual job.

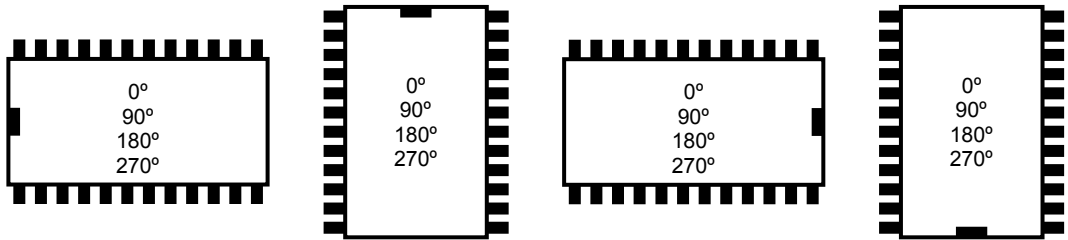
QFP's:



PLCC's:



SOIC's:



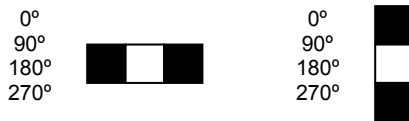
SOT's:



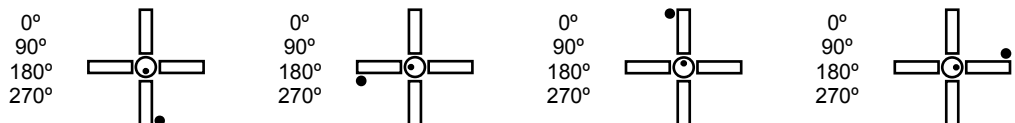
SOT 143:



Passive:



**HP/Avantek
86 Package:**



Polar Caps:

