

85-0643 ACS726 Demo Board  
Originator: S. Upton

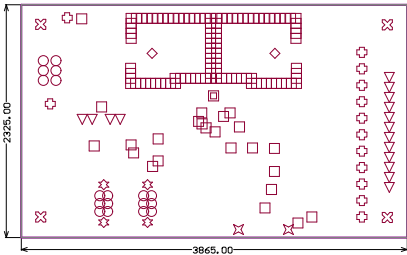
## FAB Drawing / FAB Notes and Requirements

Rev 2  
1/21/2015

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Paste				
2	Top Overlay				
3	Top Solder	Solder Resist	0.40mil	3.5	
4	Top Layer	Copper	1.40mil		
5	Dielectric1	FR-4	60.00mil	4.8	
6	Bottom Layer	Copper	1.40mil		
7	Bottom Solder	Solder Resist	0.40mil	3.5	
8	Bottom Overlay				
9	Bottom Paste				

1. Finished PCB is RoHS
2. Dimensions are in inches, unless otherwise noted.
3. Applicable Standards:
  - 3a. Manufacture in accordance to IPC-6011, IPC-6012 for Class 2 applications.
  - 3b. PCB shall meet acceptance criteria as required for Class 2 PCB as defined in IPC-600
  - 3c. UL Approved to a minimum category of 94V0.
4. Laminate:
  - 4a. Thickness: 0.062inch +/- 10%
  - 4b. Type: high temp FR4
  - 4c. This line left blank
  - 4d. Core/prepreg thickness:
    - 4d.1. See chart to left.
    - 4d.2. Core/prepreg thicknesses to be roughly uniform thickness or +/-5mil from indicated
    - 4d.3. No impedance controlled stackup required
5. Copper:
  - 5a. Layer Count: 2
  - 5b. Exterior layers: 2oz min
  - 5c. Interior layers: N/A
  - 5d. Plated through holes: plate to 1mil min copper thickness
  - 5e. Trace separation: 8mil
  - 5f. Trace min width: 10mil
  - 5g. Line width reduction due to pinholes nicks or shrinking: 20% max.
  - 5h. No impedance controlled route used; no trace width adjustment required.
6. If PCB has regions where more than 1 square inch of soldermask is removed:
  - 6a. All PCB lands in this region (square and round) are to be 100% pristine.
  - 6b. Lands outside this region may remain at 80% pristine as defined by IPC-6012.
  - 6c. Board flatness in this region shall not exceed 0.001inch total
7. Total board flatness shall not exceed 0.002inch per inch.
8. Artwork layer registration shall be within 0.003inch total.
9. Surface Finish:
  - 9a. Immersion Gold
  - 9b. For all regions covered by mechanical layer 8 or mechanical layer 9 (\*.gm8 or \*.gm9):
    - 9b.1. 30microinches Hard gold over 100microinches min low stress nickel
    - 9b.2. Minimum hard gold hardness to be 130 - 200 knoop.
    - 9b.3. Mech Layer \*.gm8 describes top layer selective gold regions
    - 9b.4. Mech Layer \*.gm9 describes bottom layer selective gold regions
    - 9b.5. No hard gold required; no \*.gm8 nor \*.gm9 files provided
10. Soldermask:
  - 10a. Top/Bottom soldermask required
  - 10b. Soldermask color shall be green.
  - 10c. Soldermask finish may be matte or glossy.
11. Silkscreen
  - 11a. Top/bottom silkscreen required.
  - 11b. Silkscreen color shall be white.
  - 11c. Min silkscreen line width: 8mil
  - 11d. Epoxy or acrylic ink allowed
12. Drill holes:
  - 12a. No blind or buried vias.
  - 12b. Hole sizes are specified after plating.
  - 12c. No via in pad used. No via filling required.
13. Mill separate according to mechl (\*.gml) layer.
14. Electrical testing required.
15. Contact information:
  - 15a. Shaun Upton [supton@allegromicro.com](mailto:supton@allegromicro.com), 603.626.2429
  - 15b. If fast turn board, 24hr contact info: N/A

Mechanical Layer 1 \*.gml is Board Outline, slots and circular cutouts  
Mechanical Layer 2 \*.gm2 is footprint notes (not for fab house)  
Mechanical Layer 3 \*.gm3 is hole location guide  
Mechanical Layer 4 \*.gm4 is board outline dimensions  
Mechanical Layer 5 \*.gm5 is topside labels (if no silk)  
Mechanical Layer 6 \*.gm6 is bottomside labels (if no silk)  
Mechanical Layer 7 \*.gm7 is FIB drawing notes  
Mechanical Layer 8 \*.gm8 is top selective hard gold  
Mechanical Layer 9 \*.gm9 is bottom selective hard gold  
Mechanical Layer 10 and up are not for usage by PCB board house  
\*.gto and \*.gbo are top and bottom layer silkscreen (aka overlay)  
\*.gts and \*.gbs are top and bottom soldermask  
\*.drl is NC Drill  
\*.appr is aperture file  
\*.gpb and \*.gpt are pad master layers, and are not used (ignore if in zip file)  
Keepout layer \*.gko is for internal usage only, and is not to be used by board house



Symbol	Hit Count	Finished Hole Size	Plated	Hole Type
■	1	50.00mil (1.270mm)	NPTH	Slot
■	2	56.00mil (1.422mm)	PTH	Round
○	2	266.00mil (6.756mm)	PTH	Round
○	4	47.24mil (1.200mm)	PTH	Round
■	4	125.00mil (3.175mm)	PTH	Round
○	13	62.00mil (1.575mm)	PTH	Round
○	16	42.00mil (1.067mm)	PTH	Round
○	18	31.50mil (0.800mm)	PTH	Round
□	128	15.00mil (0.381mm)	PTH	Round
	188 Total			

