

DRILL CHART: TOP to GND1				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	0.1	+0.076/-0.1	PLATED	221

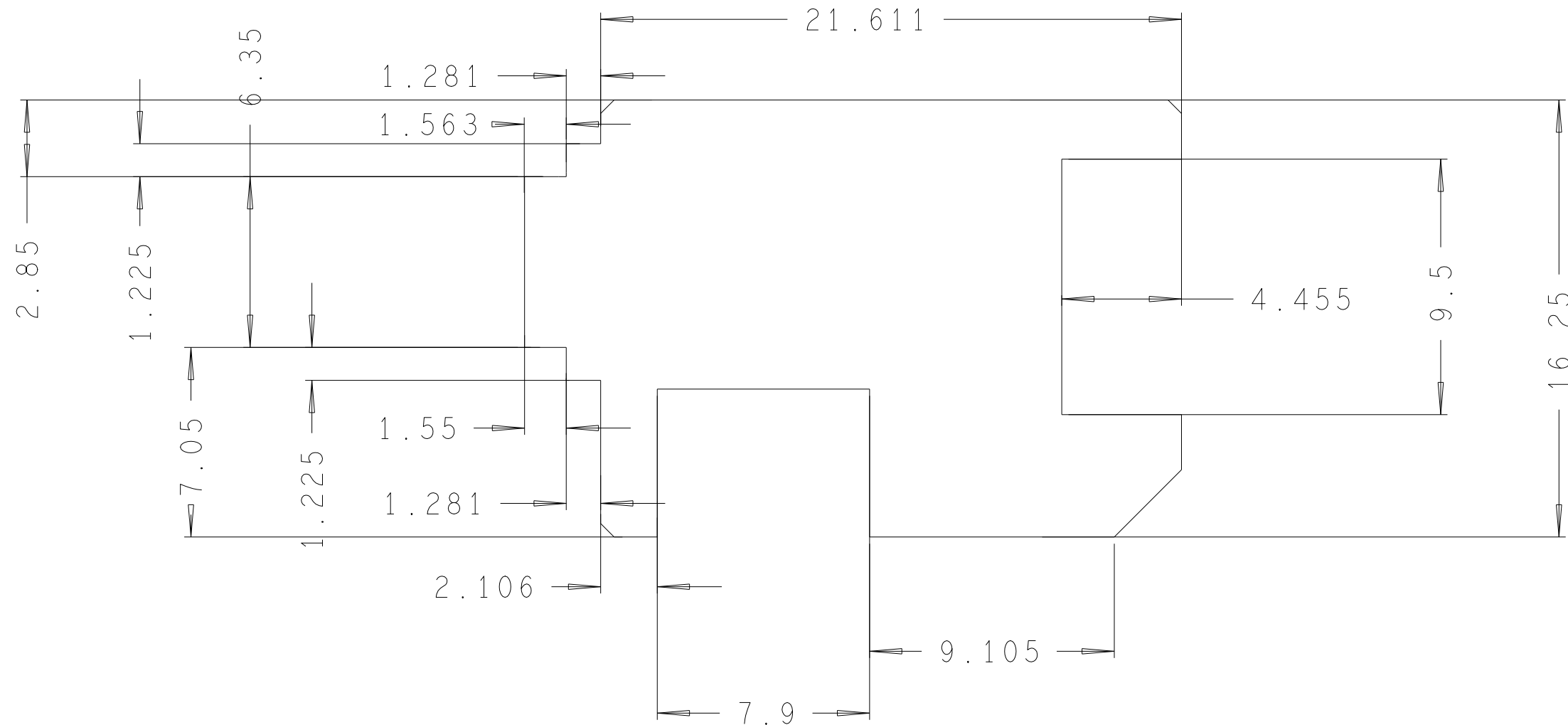
DRILL CHART: GND1 to SIGNAL_1				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	0.1	+0.0762/-0.1	PLATED	176

DRILL CHART: SIGNAL_1 to SIGNAL_2				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	0.1	+0.0762/-0.1	PLATED	159

DRILL CHART: SIGNAL_2 to PWR1				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	0.1	+0.076/-0.1	PLATED	110

DRILL CHART: PWR1 to BOTTOM				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	0.1	+0.076/-0.1	PLATED	97

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILLIMETERS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
•	0.65	+0.076/-0.076	NON-PLATED	1
•	1.1x0.5	+0.076/-0.076	PLATED	2
•	1.3x0.6	+0.1/-0.1	PLATED	2
•	1.5x0.5	+0.076/-0.076	PLATED	4
•	1.6x0.6	+0.1/-0.1	PLATED	2
•	0.95x0.65	+0.1/-0.1	NON-PLATED	1




1-4	1-2	2-3	3-4	4-5	5-6
* SURFACE - AIR 0 MM					
L1: TOP CONDUCTOR - COPPER 0.0356 MM					
* DIELECTRIC - FR-4 0.1 MM					
L2: GND1 PLANE - COPPER 0.0178 MM					
* DIELECTRIC - FR-4 0.0762 MM					
L3: SIGNAL_1 CONDUCTOR - COPPER 0.0178 MM					
* DIELECTRIC - FR-4 0.1 MM					
L4: SIGNAL_2 CONDUCTOR - COPPER 0.0178 MM					
* DIELECTRIC - FR-4 0.0762 MM					
L5: PWR1 PLANE - COPPER 0.0178 MM					
* DIELECTRIC - FR-4 0.1 MM					
L6: BOTTOM CONDUCTOR - COPPER 0.0356 MM					
* SURFACE - AIR 0 MM					
TOTAL: .6MM +/- 10%					

NOTES: Unless otherwise specified

- General Requirement:
  - Board shall be built per IPC-A-600 and IPC-6012, class II, latest revision.
  - Board shall be electrically tested per current revision of IPC 6012 and IPC 9252 class II. Completed electrical test Boards must be marked in permanent non-conductive ink next to supplier UL recognition mark.
  - Configuration of the printed circuit board not specifically dimensioned on the drawing shall be controlled by the gerber data.
  - Bow and Twist: shall not exceed .007" per inch.
  - Fabrication Tolerances: end product trace widths and lands shall not vary more than the smaller of .001" or 20% of the trace width from the gerber data.
  - PCB fabrication process and materials must be compliant with the Hazardous Substances (RoHS) Directive and compatible with Pb Free assembly process.
  - Theiving is allowed on all layers with 0.050" squares on 0.100" pitch and 0.100" min away from any designed features (i.e. vias, pads, traces, etc.).
- Impedance Control:
  - .157 traces on top and bottom to be 85ohm +/- 10%
  - .1016mm traces on internal layers 3 and 4 to be 85ohm +/- 10%

- Material:
  - Glass epoxy, natural color, laminated polyclad 370hr. Tg of 170C minimum. The final thickness measured over plating to be 0.60 MM, +/- 10%.
- Surface Finish:
  - All external metal finish not covered by soldermask shall be plated 118 - 250 microinches of Electroless Nickel and 2 - 8 microinches of Immersion Gold (ENIG).
- Via:
  - All non test point top side vias to be encroached (hole size +5 mils) with soldermask.
  - All non test point bottom side vias to be encroached (hole size +5 mils) and post plug after ENIG process.
  - All vias to be plugged.
  - All BGA vias and test points vias are to be free of soldermask.
  - Tangency is allowed on vias provided tear dropping is applied to the entry of the trace to the pad. All other plated holes shall have a minimum annular ring of .001".
- Drilling:
  - All hole symbols may not be shown in the drawing. See Drill chart for details.
  - Diameters in the drill table are finished hole sizes with +/-0.003" tolerance unless otherwise specified in the drill table.
- Marking:
  - Soldermask,photo-imaged liquid polymer on both sides of boards in accordance with IPC-SM-840, Type B, Class 2, over bare copper. Soldermask color to be White.
  - Component Marking: Silkscreen Bottom side with black, non-conductive epoxy ink. Lands and exposed plated areas to be free of ink.

UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN METRIC			
TOLERANCES ON: DIMENSIONS +/- .05 ANGLES +/- 5°			
		TWINKIE	
		FAB DRAWING	
SIZE D		DWG NO 180-10114	REV 04