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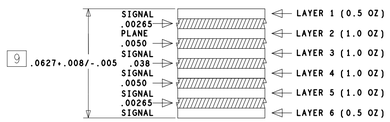
ENJOY!

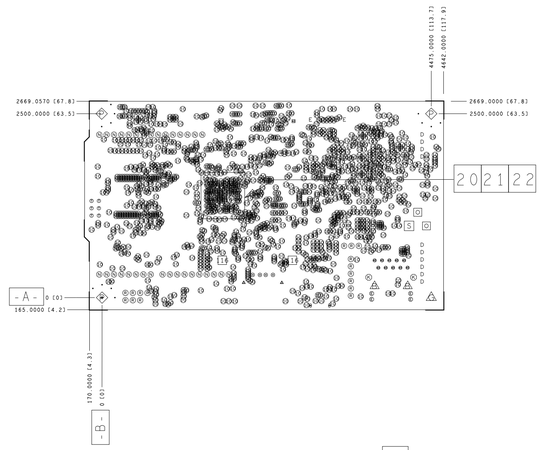
REVISIONS							
REV	DESCRIPTION	DFT	DATE	CHK	DATE	APVD	DATE
01	INITIAL RELEASE FAB H	JEIRVIN	05/22/14				

N

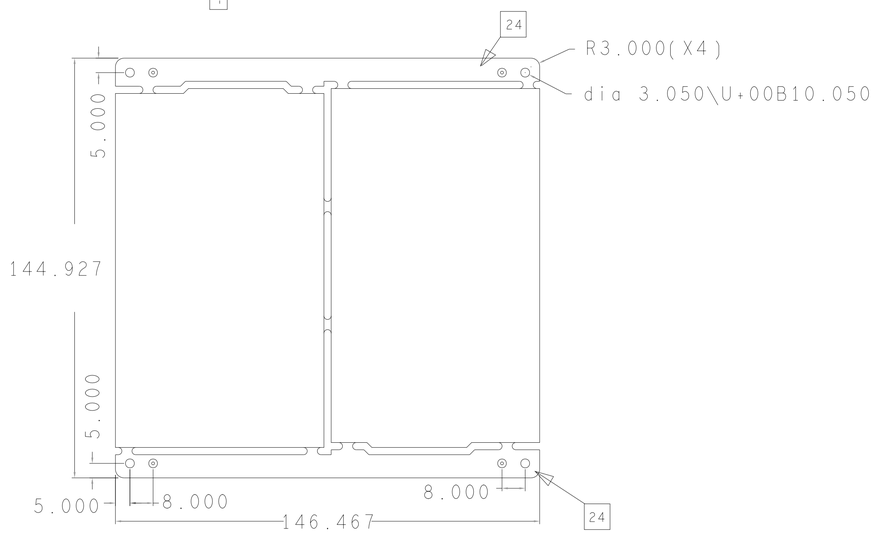
PROCESS FLOW
WAVE & SMT



LAYER STACKING
SCALE: NONE



DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	TOLERANCE	PLATED	QTY
8 ⊕	10.0	+0.0/-10.0	PLATED	1483
8 ·	14.0	+0.0/-14.0	PLATED	12
S	36.0	+3.0/-3.0	PLATED	32
⊕	38.0	+3.0/-3.0	PLATED	4
D	44.0	+2.0/-2.0	PLATED	10
⊕	44.0	+3.0/-3.0	PLATED	18
⊕	45.0	+3.0/-3.0	PLATED	10
⊕	49.0	+3.0/-3.0	PLATED	6
⊕	50.0	+3.0/-3.0	PLATED	4
⊕	72.0	+3.0/-3.0	PLATED	2
⊕	91.0	+3.0/-3.0	PLATED	2
⊡	108.0	+3.0/-3.0	PLATED	1
⊡	110.0	+3.0/-3.0	PLATED	1
S	130.0	+5.0/-5.0	PLATED	1
M	43.0	+3.0/-3.0	NON-PLATED	1
E	56.0	+2.5/-2.5	NON-PLATED	2
B	63.0	+2.0/-2.0	NON-PLATED	1
1X	116.0	+3.0/-3.0	NON-PLATED	2
A	127.0	+3.0/-3.0	NON-PLATED	2
◇	156.0	+2.0/-1.0	NON-PLATED	3
△	156.0	+2.0/-1.0	NON-PLATED	1
▮	49.213x25.591	+3.0/-3.0	PLATED	2



1) NPTH locational tolerance = +/-0.05mm from datum
2) Copper feature to NPTH hole tolerance = +/- 0.10mm.
3) Panel outline tolerance = +/- 0.15mm.
4) Primary side of PCB is shown.
5) PCB fabricator may add dummy copper on the breakaway, but not on the break-out tabs.
~~6) Copper keep out area.~~
7) Unit: mm [inch].

PANELIZATION DETAIL

NOTES: UNLESS OTHERWISE SPECIFIED:

1. ITEM IDENTIFICATION NUMBER IS PARENT LINE ITEM NUMBER ON ENGINEERING PARTS LIST.
2. THIS DRAWING ALSO EXISTS ON ELECTRONIC MEDIA.
3. FABRICATE PER INTEL SPECIFICATION A84501.
4. THE CENTER OF THIS HOLE ESTABLISH DATUM -A-.
5. DATUM -B- IS ESTABLISHED PERPENDICULAR TO DATUM -A- THROUGH THE CENTER OF THIS HOLE.
6. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M.
7. COMPARE SUPPLIED IPC-D-356 NETLIST TO SUPPLIED GERBER DATA PRIOR TO FABRICATION.

[8] THESE HOLES MAY BE PLATED SHUT.

[9] CONTROLLED IMPEDANCE: SEE LAYER STACK AND IMPEDANCE CHART. NOTE: THE IMPEDANCE CHARTS WILL REFLECT ALL POSSIBLE IMPEDANCE VALUES WHICH MAY BE REQUIRED IN THE DESIGN. NOT ALL VALUES WILL BE PRESENT ON EACH LAYER.

10. SMT LAND PATTERNS THAT HAVE A FINISHED PAD WIDTH RANGING FROM .012 TO .015 MUST USE THE FOLLOWING TOLERANCE. +.002 -.0005. PB VENDOR TO ADJUST ARTWORK TO COMPENSATE FOR ETCH PROCESS
11. ~~THIS BOARD REQUIRES VIA CAPPING ON THE SECONDARY SIDE. ALL VIA CAPPING SHALL FILL 50 TO 90% OF THE HOLE. COVERAGE FOR ALL VIA IN PAD (VIP) DEVICES SHALL BE 100% PER INTEL SPECIFICATION 454979.~~
12. ~~THESE PADS ARE TO BE COVERED BY SOLDERMASK ON THE PRIMARY AND SECONDARY SIDES PER THE ARTWORK EXCEPT AS NOTED IN NOTE 16.~~
13. FINISH: IMMERSION GOLD
14. MATERIAL: 370HR OR EQUIVALENT
15. SOLDERMASK COLOR: BLUE. SILKSCREEN COLOR: WHITE
16. ALL PADS MUST NOT BE COVERED BY SOLDERMASK ON THE SECONDARY SIDE PER THE ARTWORK - SEE FAB SHEETS 2 AND 3 FOR EXCLUSIONS.
17. DELIVERY REQUIREMENTS:
    A. ONE BARE BOARD (SOLDER SAMPLE) AND CROSS-SECTION SHALL BE INCLUDED WITH EACH BOARD LOT.
    B. A TDR REPORT, ONE PER PANEL SHALL ACCOMPANY THE MATERIAL SHIPMENT.

[18] ~~V-GROOVE MAY BE LOCATED IN AN AREA +/- 0.010" ON EITHER SIDE OF V-GROOVE CENTERLINE.~~

[19] ~~V-GROOVE SEPARATION DENOTED BY LINE.~~

[20] SOLDERMASK MUST NOT EXCEED .001 THICKNESS FROM TOP OF COPPER FEATURE TO TOP OF SOLDERMASK IN THIS AREA ON TOP SIDE ONLY

[21] NO EXPOSED METAL ALLOWED ON TOP SIDE VIA PADS WHERE SHOWN

[22] NO SOLDERMASK ALLOWED ON SMT PADS

23. SOLDERMASK MAY ENCROACH ON VIA'S IN ORDER TO CREATE A SOLDERMASK WEB BETWEEN VIA AND PAD.

[24] THIEVING ALLOWED ON OUTRIGGERS (BREAKAWAY SECTIONS).

25. TOLERANCE OF BOARD OUTLINE IS +/-0.127MM (5MILS).

[9] IMPEDANCE CHART

LAYER(S)	FINISHED TRACE WIDTH (MILS)	TRACE SPACING (EDGE TO EDGE)	REQUIRED IMPEDANCE	TOLERANCE
1 AND 6	4.0	15.0	100 OHMS	+/- 10%
	4.0	6.0	90 OHMS	+/- 10%
	~~4.5~~	~~5.5~~	~~85 OHMS~~	~~+/- 10%~~
	5.3	4.7	76 OHMS	+/- 10%
	7.2	5.3	66 OHMS	+/- 10%
	4.2	--	50 OHMS	+/- 10%
	6.5	--	40 OHMS	+/- 5 OHMS
3 AND 4	6.5	--	50 OHMS	+/- 10%

UNLESS OTHERWISE SPECIFIED:	SIGNATURE	DATE
1. DIMENSIONS ARE IN INCHES	DRN BY JEIRVIN	12/20/2013
~~2. BREAK ALL SHARP EDGES~~	CHK BY	
3. DO NOT SCALE DRAWING	ENGR APVD	
~~4. TOLERANCES~~	APVD	
~~ANGLES +/-~~	APVD	

TITLE
PB, GALILEO

SIZE	DCLC	CLASS CODE	DOCUMENT NUMBER	REV
D			G87173-207	01

SCALE 1:1 SHEET 1 OF 1