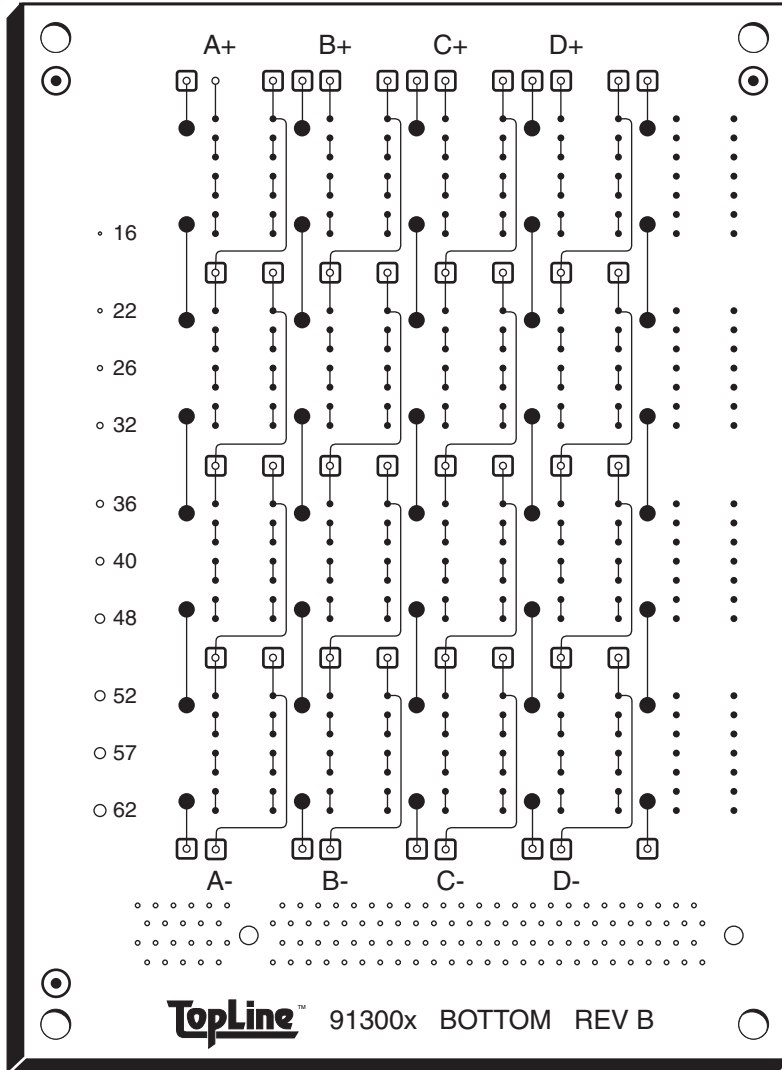




12 LAYER LEAD FREE THROUGHHOLE KIT DAISY CHAIN



Actual Size: 4.0" x 5.5" (100 x 140mm) 0.10" (2.5mm) thick



12-layer board designed with heat dissipating (thermal relief) inner layers, makes this board a challenge to solder. Boards available in 4 Lead Free finishes.

BOARD PLATING (Pb Free):

- Sn100 – White Tin (Immersion Tin)
- Ag - Immersion Silver
- Cu - OSP (Entek 106)
- Au - Gold Ni-Au (ENIG) (Electroless Nickel, Immersion Gold)

DAISY CHAIN

- DIP14
- Zero Ohm 1/4 W Resistors
- Go, No-Go Test Points

PLATED HOLES

- Throughhole barrels with thermal relief are connected to all 10 inner layer copper ground planes for soldering capillary test.
- 10 holes with graduating sizes: .016" - .062" (0.4mm ~1.6mm)

FEATURES


- LPI Solder Mask
- FR4 Board 0.10" (2.5mm) Thick
- Tg = 175°C 12 Layer
- Copper ground plane inner layers
- Tooling Holes
- Fiducials Marks
- 450 Plated Holes



12 LAYER LEAD FREE THROUGHHOLE KIT DAISY CHAIN



KIT ORDERING INFORMATION

COMPONENT	NOTES	 MACHINE RUN				
		ORDER NUMBER 913216 16 KITS	ORDER NUMBER 913232 32 KITS	ORDER NUMBER 913248 48KITS	ORDER NUMBER 913264 64 KITS	ORDER NUMBER 913296 96 KITS
*Board	Sn100	16	32	48	64	96
DIP14	Daisy Chain Test	256	512	768	1024	1536
DIP14	None Daisy Chain	64	128	192	256	384
1/4 W Resistors	Zero Ohm	320	640	960	1280	1920
Connector AMP 1-145154-2	120 Pin	16	32	48	64	96

*Note: Contact TopLine for combination kits with assortment of finishes: Sn, Ag, OSP, Au

Order Quantity Increment (MOQ for each Finish):

Without IST Coupon (standard) : Quantity multiples of 16 (example: 16, 32, 48, 64, 80, 96 etc)

OPTIONAL ACCESSORIES	
<i>PARTS PLACEMENT DATA X, Y, THETA ASCII FILE ORDER NUMBER 913004</i>	<i>BOARD ORDER NUMBER Sn - Tin 913002 Ag - Immersion Silver 913007 Cu - OSP Entek 913008 Au - Gold ENIG 913009</i>
<i>SOLDER PASTE ARTWORK GERBER FILE ORDER NUMBER 913005</i>	

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

U1
R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53 R54 R55 R56 R57 R58 R59 R60 R61 R62 R63 R64 R65 R66 R67 R68 R69 R70 R71 R72 R73 R74 R75 R76 R77 R78 R79 R80 R81 R82 R83 R84 R85 R86 R87 R88 R89 R90 R91 R92 R93 R94 R95 R96 R97 R98 R99 R100

U2
R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53 R54 R55 R56 R57 R58 R59 R60 R61 R62 R63 R64 R65 R66 R67 R68 R69 R70 R71 R72 R73 R74 R75 R76 R77 R78 R79 R80 R81 R82 R83 R84 R85 R86 R87 R88 R89 R90 R91 R92 R93 R94 R95 R96 R97 R98 R99 R100

U3
R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53 R54 R55 R56 R57 R58 R59 R60 R61 R62 R63 R64 R65 R66 R67 R68 R69 R70 R71 R72 R73 R74 R75 R76 R77 R78 R79 R80 R81 R82 R83 R84 R85 R86 R87 R88 R89 R90 R91 R92 R93 R94 R95 R96 R97 R98 R99 R100

U4
R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53 R54 R55 R56 R57 R58 R59 R60 R61 R62 R63 R64 R65 R66 R67 R68 R69 R70 R71 R72 R73 R74 R75 R76 R77 R78 R79 R80 R81 R82 R83 R84 R85 R86 R87 R88 R89 R90 R91 R92 R93 R94 R95 R96 R97 R98 R99 R100

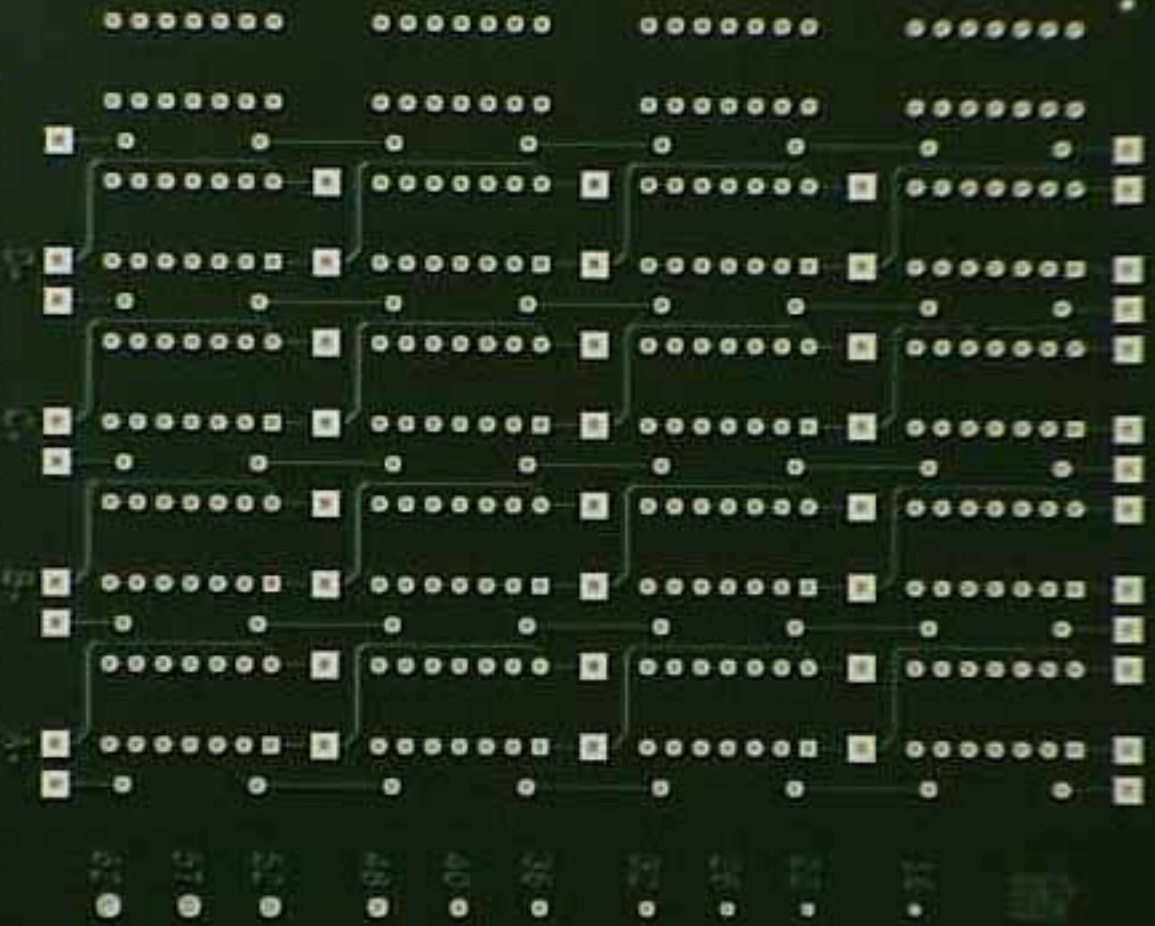


TopLine

913207 TOP REV B

8 1/2" X 11" (215 X 285) mm

TopLine™



100

100

100

100

100

100

100

100

100

100

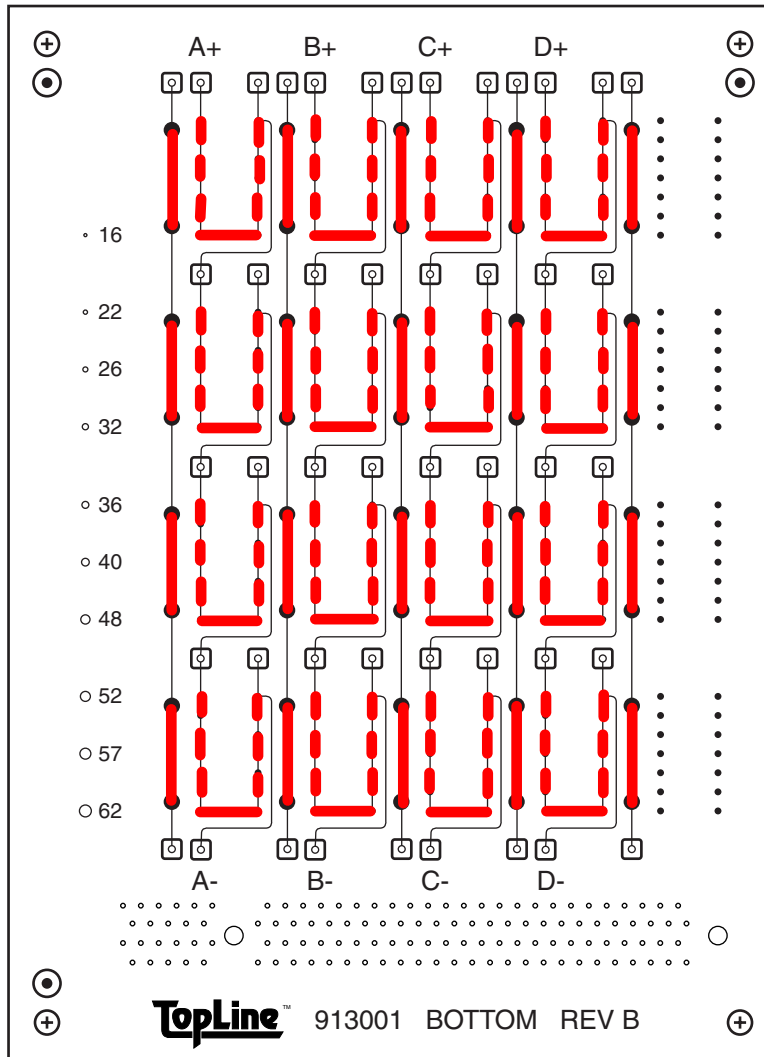
100

100

100

100

Board 913xxx After Mounting (Daisy Chain)



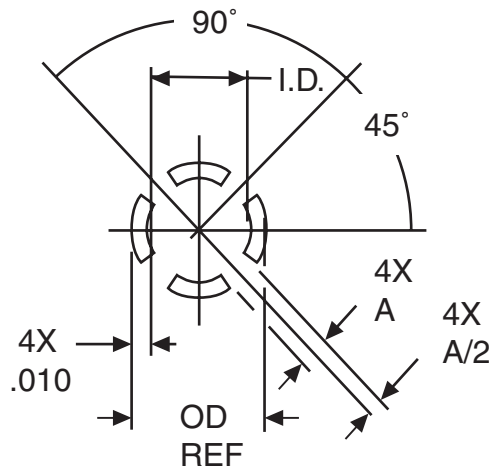
**After Assembly with Test Pads
Daisy Chain Components
Measure Zero Ohms for Correct Assembly**

Board 913001 Thermal Pad

1. Drawing of “Thermal Pad” 90° radial .010” wide traces emanating from “Throughhole barrels” and connecting with the copper ground plane.
2. Crescents are void of copper. Traces are “between” the crescents and connect to copper ground plane.

Inner and outer layer conductive planes shall use thermal relief techniques. They are used to ensure adequate barrel heating during soldering for PTH leads that are connected to power and ground layers.

3. Use for U17 - U20, capillary holes 16 - 62 and connector pins



Thermal Relief for Leaded Components

Thermal Pad DIA:

ID = Pad Diameter

OD = ID + .020 inches

A (webs) = .010 inch

Thermal relief is typically only used on barrels used for soldering PTH component leads.

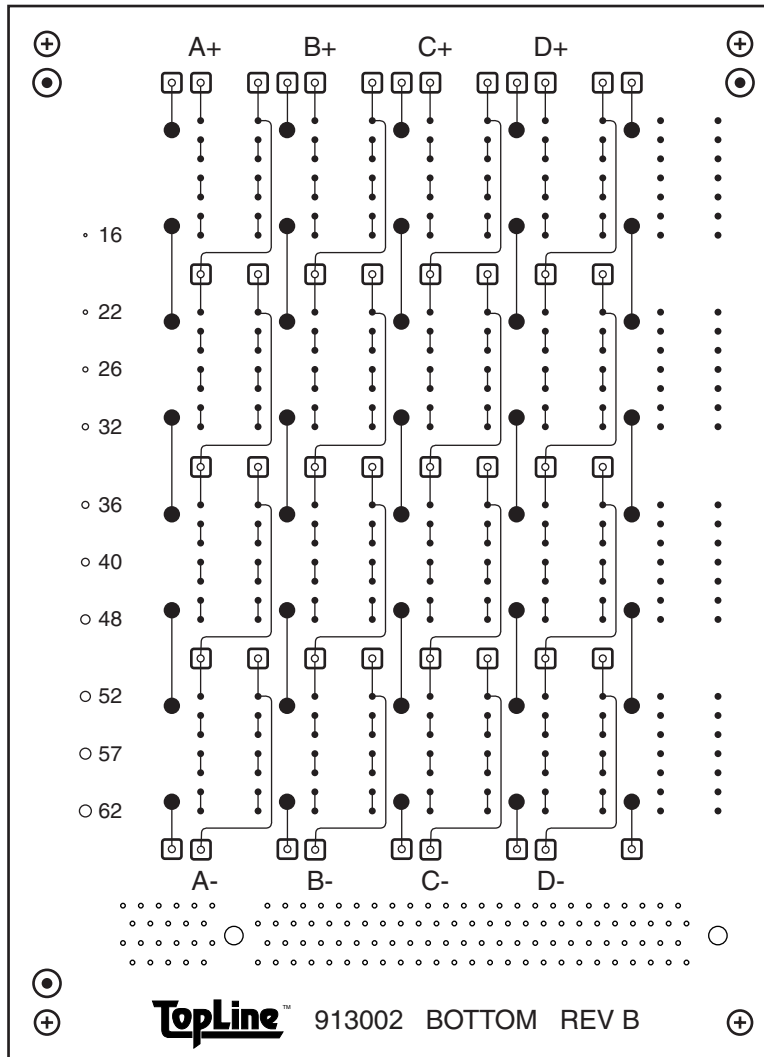


Tel.(714) 898-3830
sales@topline.tv

Board 913001 Location for Thermal Pads

Component	I.D.	O.D.
U17-U20	0.036	0.056
Hole 16	0.016	0.036
Hole 22	0.022	0.042
Hole 26	0.026	0.046
Hole32	0.032	0.052
Hole 36	0.036	0.056
Hole 40	0.04	0.06
Hole 48	0.048	0.068
Hole 52	0.052	0.072
Hole 57	0.057	0.077
Hole 62	0.062	0.082
Connector	0.0243	0.0443

Board 913001 Multilayer Throughhole



BOTTOM LAYER
X-Ray View from top side
Legend shown right reading for clarity