

FAB DWG

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.036mm		
4	Dielectric1	FR-4	0.691mm	4.2	
5	Signal Layer 1	Copper	0.036mm		
6	Dielectric 3		0.127mm	4.2	
7	Signal Layer 2	Copper	0.036mm		
8	Dielectric 2		0.691mm	4.2	
9	Bottom Layer	Copper	0.036mm		
10	Bottom Solder	Solder Resist	0.010mm	3.5	
11	Bottom Overlay				

NOTES:

- MATERIAL:**
FR4, TG MINIMUM 170C
4 LAYERS
LAYER-TO-LAYER REGISTRATION TO BE WITHIN N +/- 0.076mm [0.003] OF TRUE POSITION
FINISHED THICKNESS 1.57mm +/- 0.15mm [0.062 +/- 0.006]
BOW AND TWIST SHALL BE 0.75% OR LESS AS MEASURED IAW IPC-TM-650
- DRILLING:**
ALL HOLES SHALL BE LOCATED WITHIN +/- 0.076mm [0.003] OF TRUE POSITION
FINISHED SIZE TO BE WITHIN +/- 0.076mm [0.003]
- PLATING:**
PLATING IN HOLES TO BE MINIMUM 25um [0.001] THICK CU
ALL SIGNAL LAYERS TO BE PLATED 35um [0.0014 ; 1oz]
THICK CU
SURFACE FINISH TO BE IMMERSION GOLD
- SOLDER MASK:**
SMOBC, LIQUID PHOTO-IMAGABLE GREEN, BOTH SIDES
- SILKSCREEN:**
WHITE EPOXY INK, BOTH SIDES
NO LEGEND ALLOWED ON PADS
MFG'S UL SYMBOL, DATE CODE, AND UL FLAMABILITY RATING TO BE PERMANENTLY MARKED IN INK ONLY, NOT AS CU
- UL RATING:**
94V-0
- ELECTRICAL TEST:**
TEST FOR SHORTS AND OPENS AT 250V MIN
MARK BOARDS THAT PASS ELECTRICAL TEST
- STANDARDS:**
BOARD TO BE FABRICATED PER IPC 6012 CLASS 2
- CONTROLLED IMPEDANCE:**
SINGLE ENDED 50 OHM NETS
BOTTOM LAYER TRACES WITH WIDTH 1.25MM
ADJUST DIELECTIC AND/OR TRACE WIDTH AS NEEDED

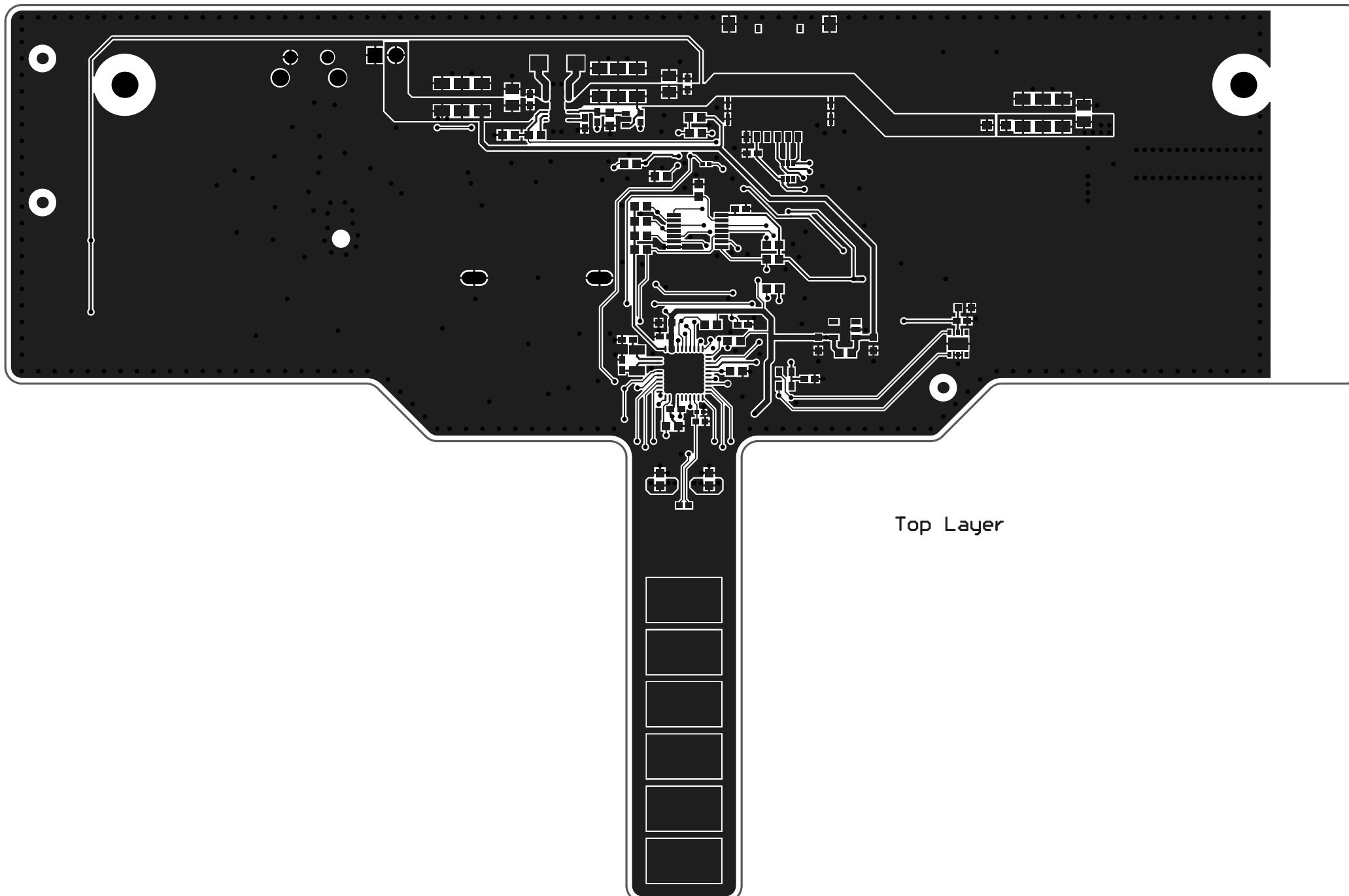
Status: Released	charity: water	
Created by: MD	Create date: 12/05/16	Project Name: AfriDev
Checked by: EE	Check date: 11/29/16	Title: Main Board
Released by: JW	Release date: 1/30/2018	Model code: NA
Material: See fab notes	TOLERANCE (UNLESS OTHERWISE SPECIFIED) ANGULAR: N/A FRACTIONAL: N/A DECIMAL: N/A	Style: NA
Scale: Tabloid	Finish #1 See fab notes	Part Number: 0001-60-00091-01
	Finish #2 See fab notes	Option: NA
C.O.-no.: NA	Item no.: NA	Rev no.: 2.0

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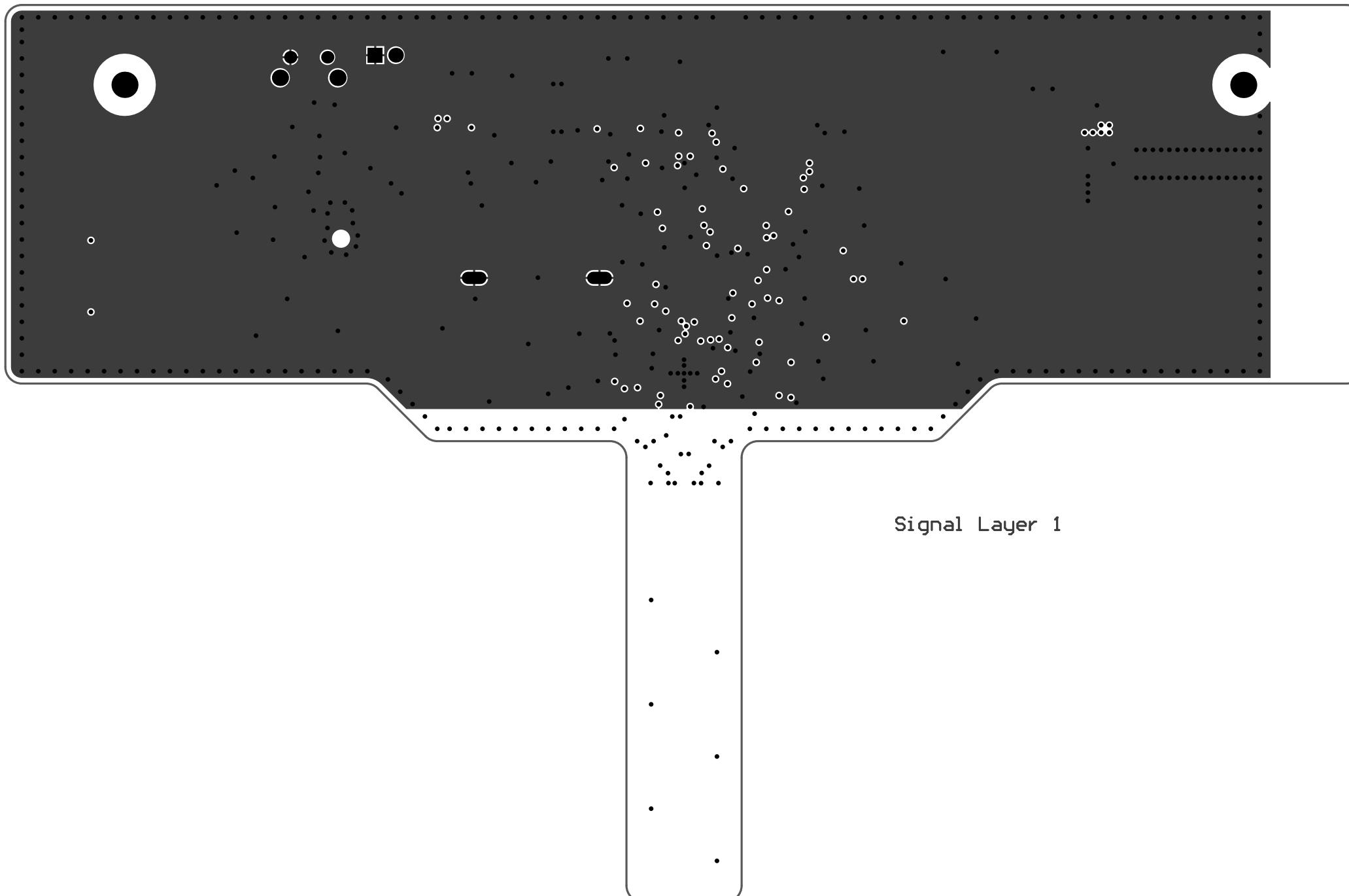
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SINGLE ENDED 50 OHM NETS
BOTTOM LAYER TRACES WITH WIDTH 1.25MM
ADJUST DIELECTRIC AND/OR TRACE WIDTH AS NEEDED



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C.O.-no.:# NA	Finish #2 See fab notes	Option: NA
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FAB DWG



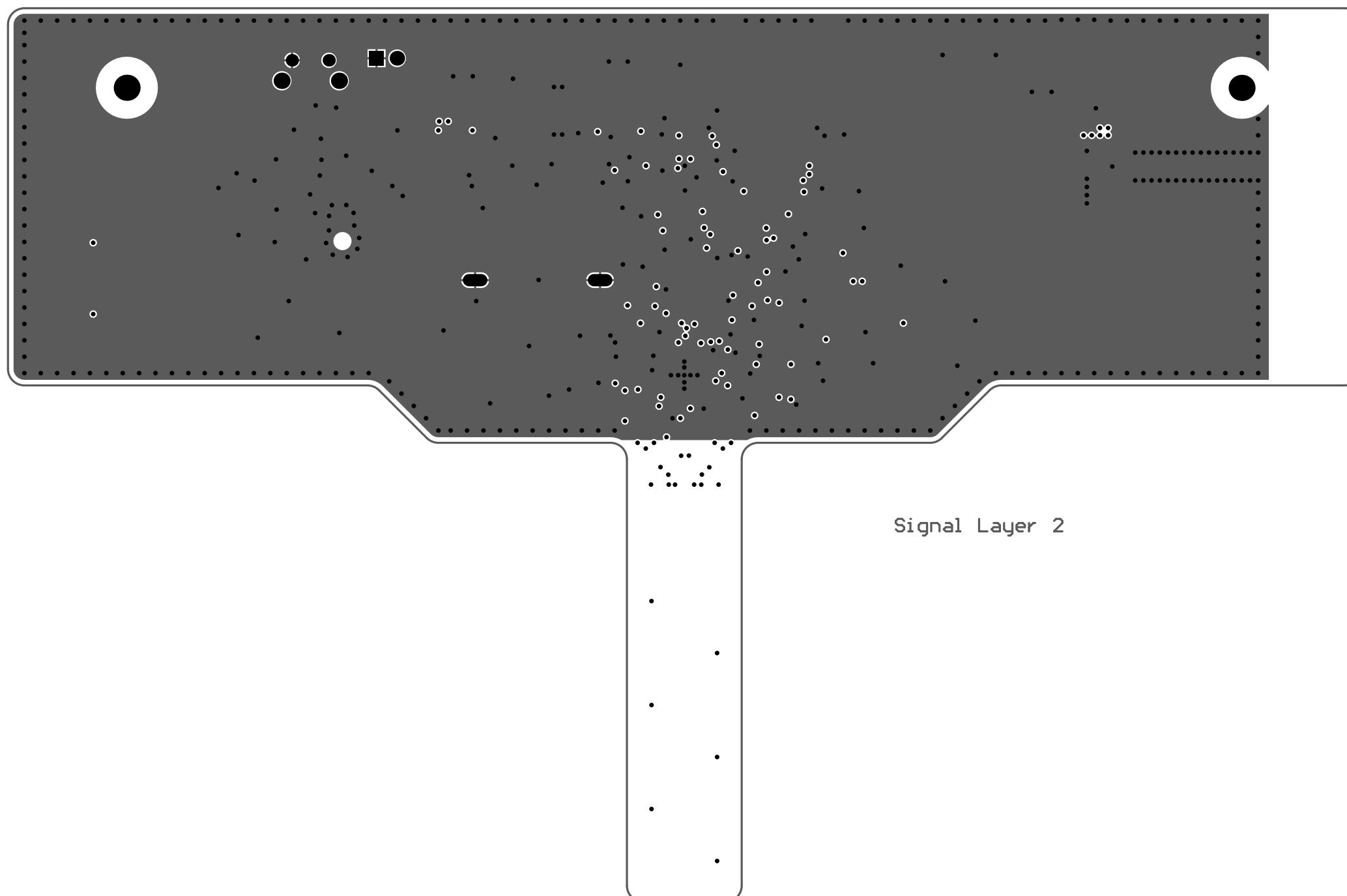
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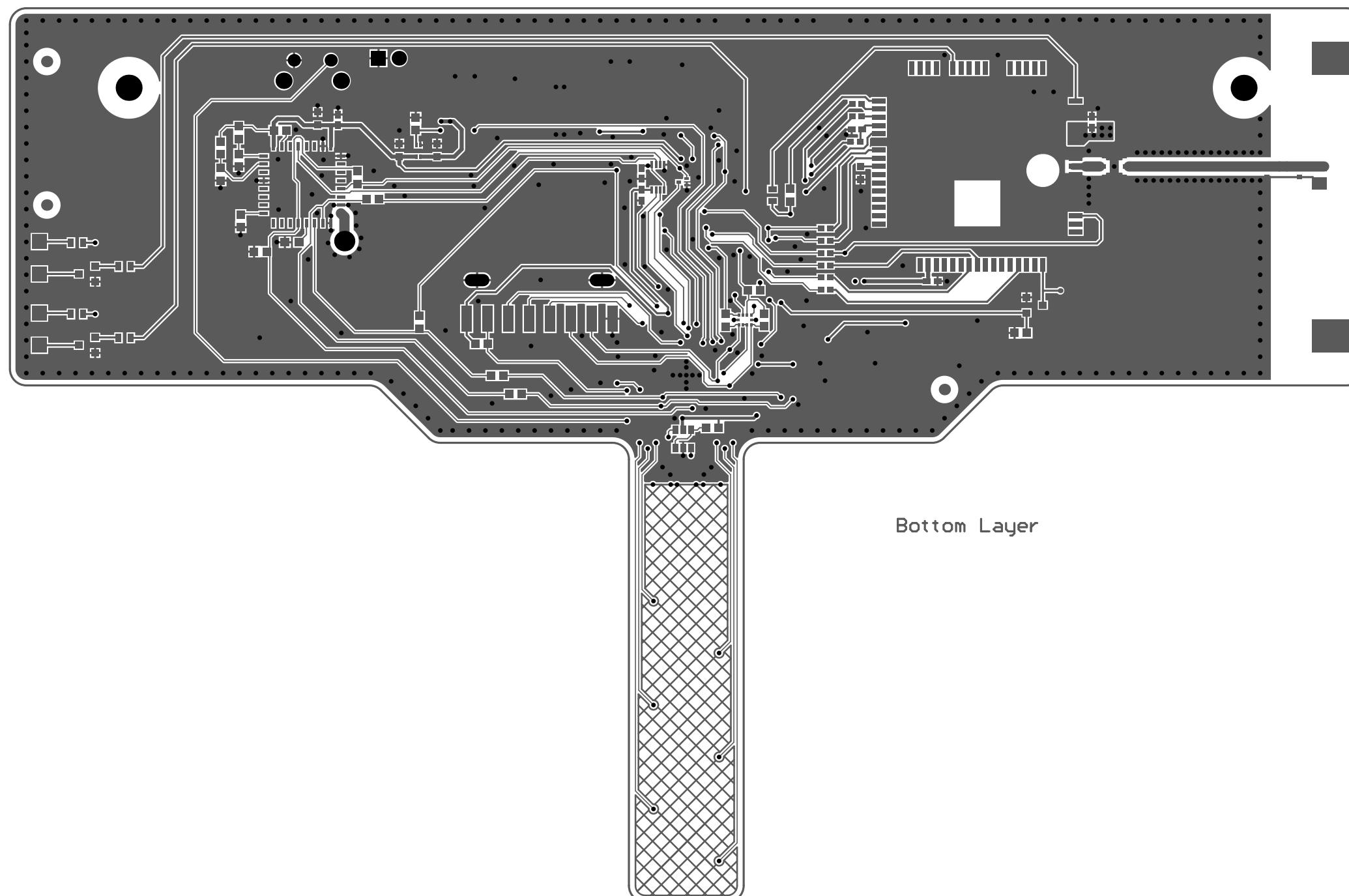


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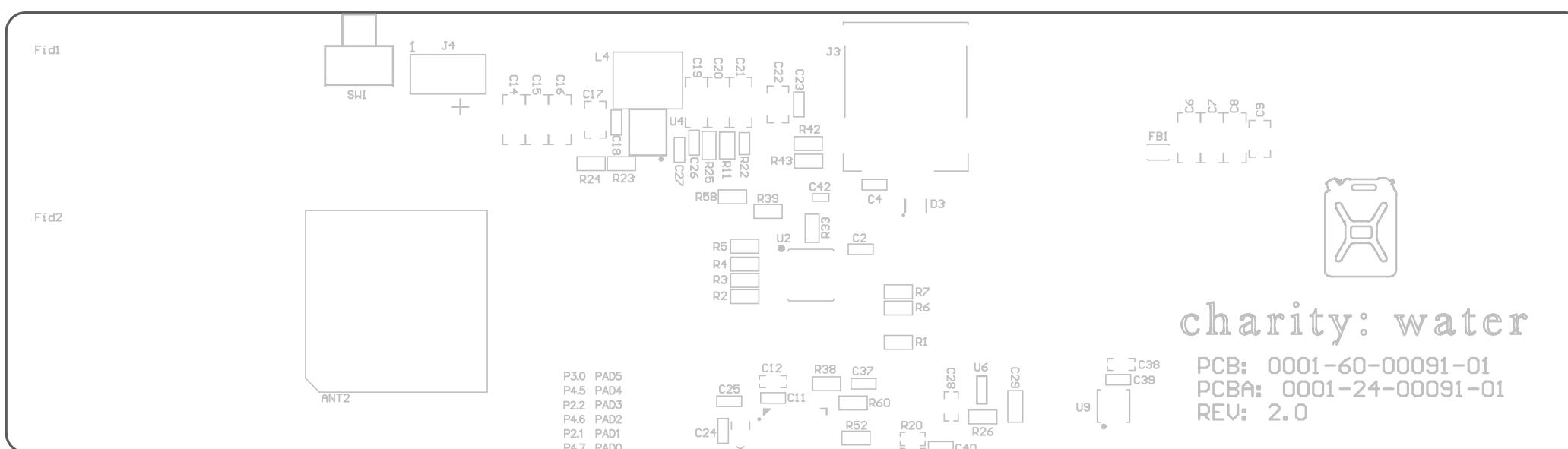
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Scale: Tabloid		Finish #2 See fab notes	
C.O.-no.:# NA		Item no.:# NA	Rev no.:# 2.0

FAB DWG

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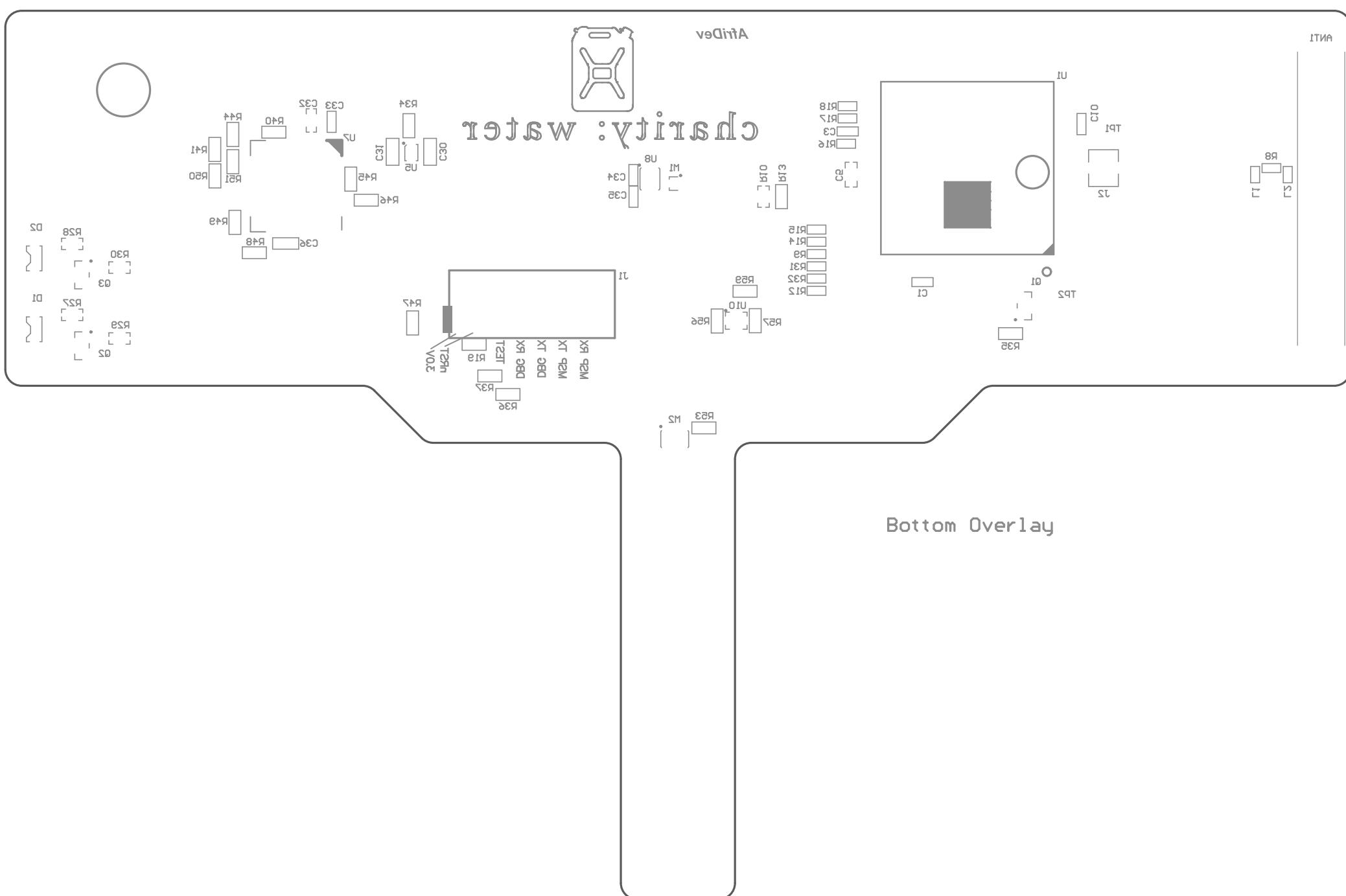


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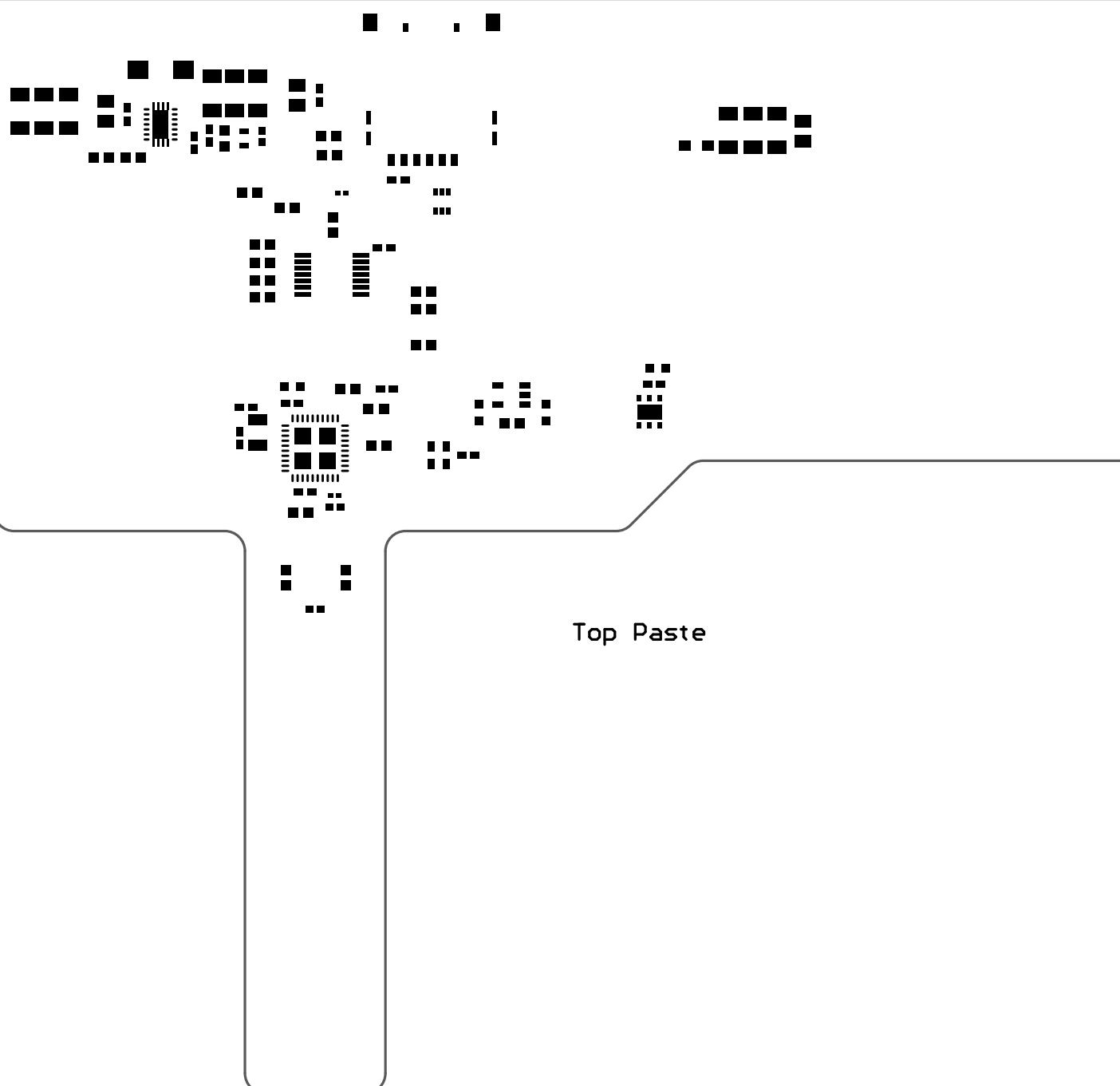
Status: Released	charity: water		
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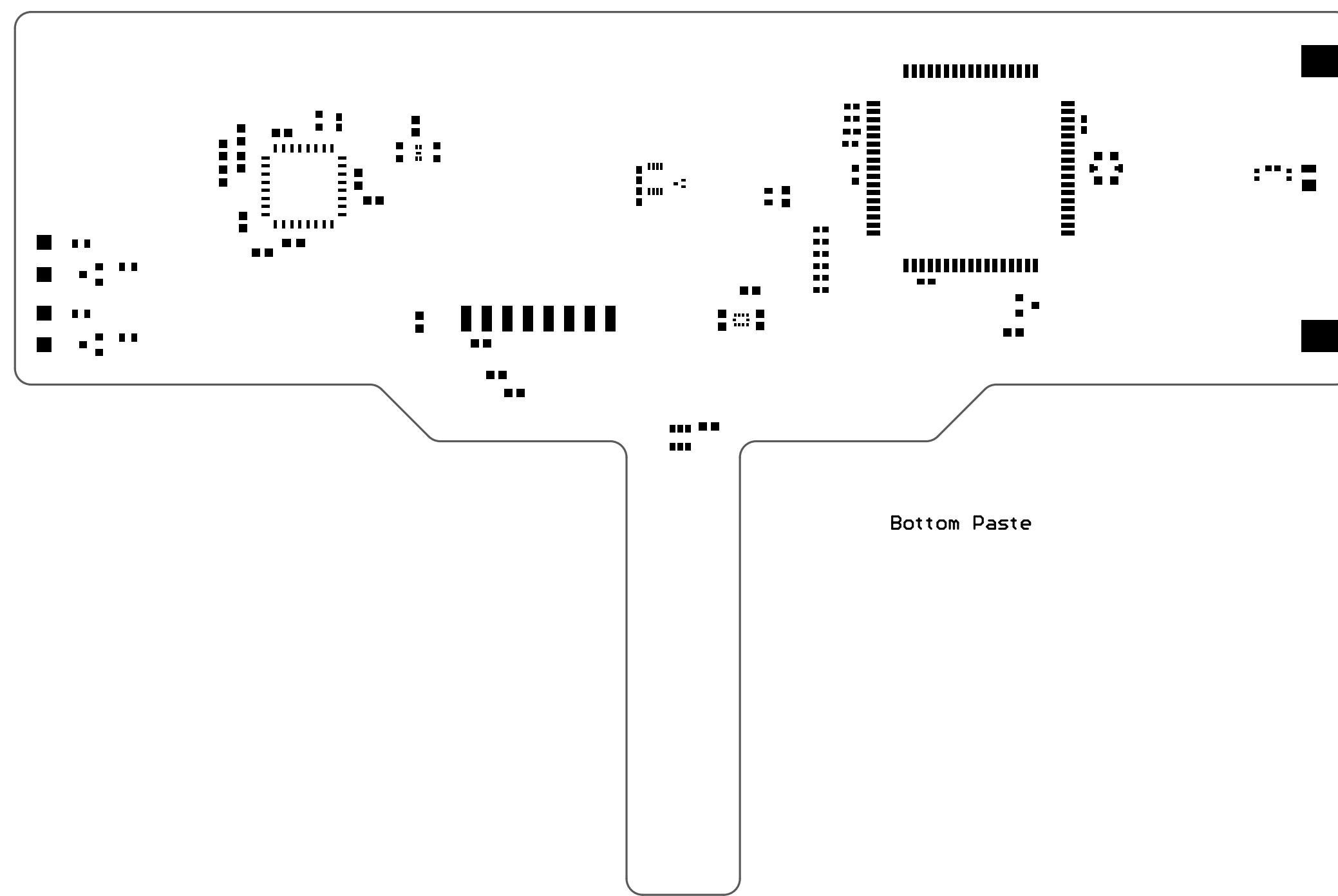


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FAB DWG

A

A



B

B

C

C

D

D

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Checked by: EE	Check date: 11/29/16	Title: Main Board	
Released by: JW	Release date: 1/30/2018	Model code: NA	Part Number: 0001-60-00091-01
Material: See fab notes	TOLERANCE (UNLESS OTHERWISE SPECIFIED) ANGULAR: N/A FRACTIONAL: N/A DECIMAL: N/A	Finish #1 See fab notes	Option: NA
Scale: Tabloid		Finish #2 See fab notes	
C.O.-no.: NA		Item no.: NA	Rev no.: 2.0

FAB DWG



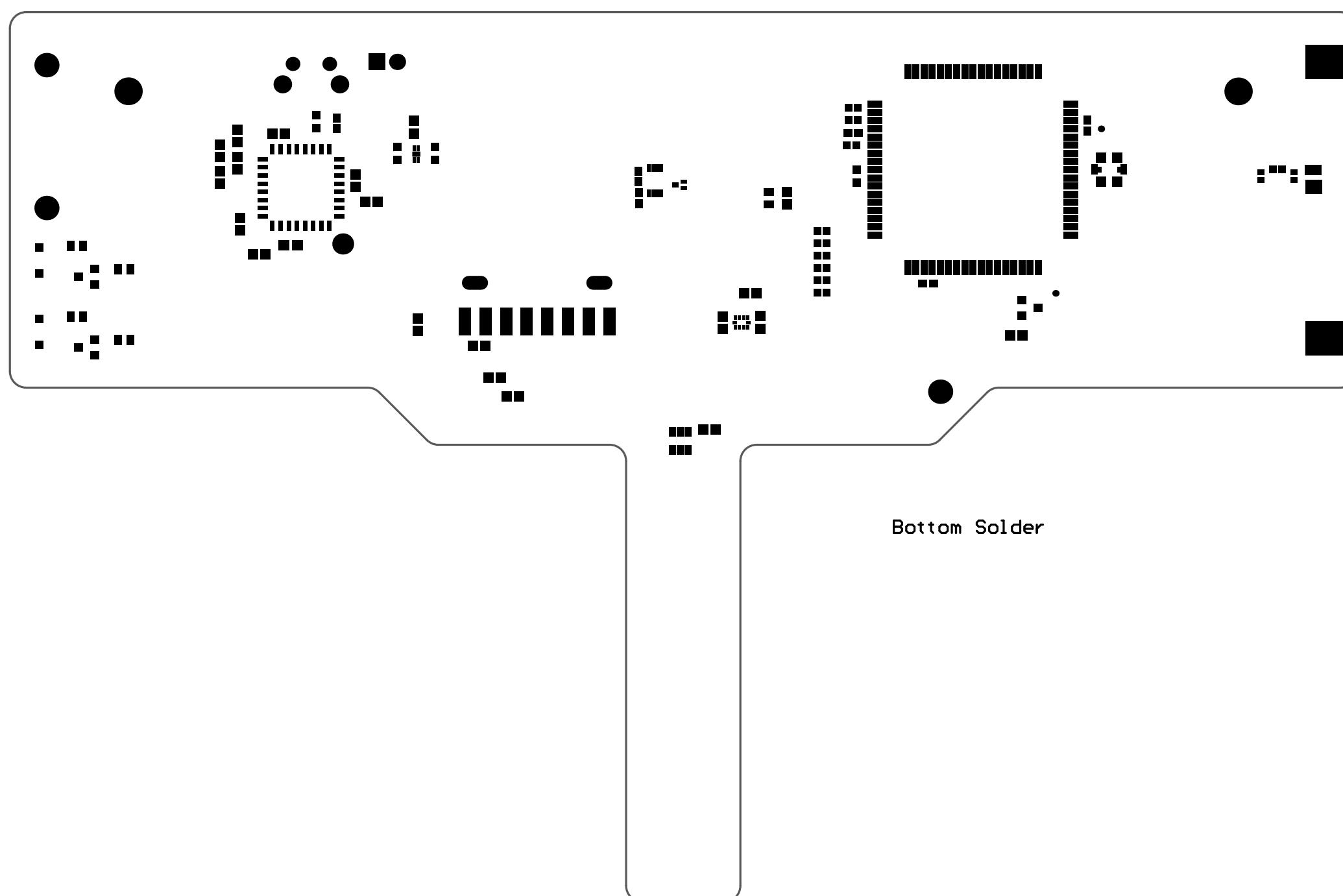
Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.010mm	3.5	
3	Top Layer	Copper	0.036mm		
4	Dielectric1	FR-4	0.691mm	4.2	
5	Signal Layer 1	Copper	0.036mm		
6	Dielectric 3		0.127mm	4.2	
7	Signal Layer 2	Copper	0.036mm		
8	Dielectric 2		0.691mm	4.2	
9	Bottom Layer	Copper	0.036mm		
10	Bottom Solder	Solder Resist	0.010mm	3.5	
11	Bottom Overlay				

NOTES:

- MATERIAL:**
FR4, TG MINIMUM 170C
4 LAYERS
LAYER-TO-LAYER REGISTRATION TO BE WITHIN N +/- 0.076mm [0.003] OF TRUE POSITION
FINISHED THICKNESS 1.57mm +/- 0.15mm [0.062 +/- 0.006]
BOW AND TWIST SHALL BE 0.75% OR LESS AS MEASURED IAW IPC-TM-650
- DRILLING:**
ALL HOLES SHALL BE LOCATED WITHIN +/- 0.076mm [0.003] OF TRUE POSITION
FINISHED SIZE TO BE WITHIN +/- 0.076mm [0.003]
- PLATING:**
PLATING IN HOLES TO BE MINIMUM 25um [0.001] THICK CU
ALL SIGNAL LAYERS TO BE PLATED 35um [0.0014 ; 1oz]
THICK CU
SURFACE FINISH TO BE IMMERSION GOLD
- SOLDER MASK:**
SMOBC, LIQUID PHOTO-IMAGABLE GREEN, BOTH SIDES
- SILKSCREEN:**
WHITE EPOXY INK, BOTH SIDES
NO LEGEND ALLOWED ON PADS
MFG'S UL SYMBOL, DATE CODE, AND UL FLAMABILITY RATING TO BE PERMANENTLY MARKED IN INK ONLY, NOT AS CU
- UL RATING:**
94V-0
- ELECTRICAL TEST:**
TEST FOR SHORTS AND OPENS AT 250V MIN
MARK BOARDS THAT PASS ELECTRICAL TEST
- STANDARDS:**
BOARD TO BE FABRICATED PER IPC 6012 CLASS 2
- CONTROLLED IMPEDANCE:**
SINGLE ENDED 50 OHM NETS
BOTTOM LAYER TRACES WITH WIDTH 1.25MM
ADJUST DIELECTIC AND/OR TRACE WIDTH AS NEEDED

Status: Released	charity: water		
Created by: MD	Create date: 12/05/16	Project Name: AfriDev	
Checked by: EE	Check date: 11/29/16	Title: Main Board	
Released by: JW	Release date: 1/30/2018	Model code: NA	Part Number: 0001-60-00091-01
Material: See fab notes	TOLERANCE (UNLESS OTHERWISE SPECIFIED) ANGULAR: N/A FRACTIONAL: N/A DECIMAL: N/A	Finish #1 See fab notes	Option: NA
Scale: Tabloid		Finish #2 See fab notes	
C.O.-no.: NA		Item no.: NA	Rev no.: 2.0

FAB DWG



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5	Signal Layer 1	Copper	0.036mm		
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7	Signal Layer 2	Copper	0.036mm		
8	Dielectric 2		0.691mm	4.2	
9	Bottom Layer	Copper	0.036mm		
10	Bottom Solder	Solder Resist	0.010mm	3.5	
11	Bottom Overlay				

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Released by: JW	Release date: 1/30/2018	Model code: NA	Part Number: 0001-60-00091-01
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Scale: Tabloid	C.O.-no.: NA	Item no.: NA	Rev no.: 2.0