

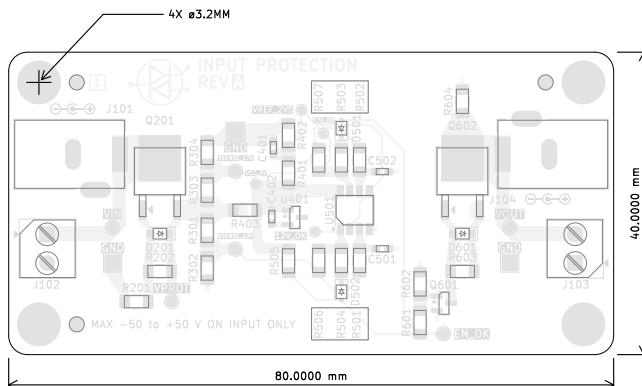
# INPUT PROTECTION Fabrication DOCUMENT

## A Layer Stack Legend

Material	Layer	Thickness	Dielectric	Type	Gerber
	F.Paste			Paste Mask	
	F.Silkscreen		Direct Printing	Legend	GBR
	F.Mask	0.02mm	Solder Resist	Solder Mask	GBR
Copper	L1 (Sig, PWR)	0.07mm (2.00oz)		Signal	GBR
Core		1.48mm	FR4_7628	Dielectric	
Copper	L2 (Sig, GND)	0.07mm (2.00oz)		Plane	GBR
	B.Mask	0.02mm	Solder Resist	Solder Mask	GBR
	B.Silkscreen		Direct Printing	Legend	GBR
	B.Paste			Paste Mask	

Total thickness: 1.66mm  
Note: external layer thicknesses are specified after plating

## Top Fabrication (Scale 1:1)



### FABRICATION NOTES (UNLESS OTHERWISE SPECIFIED)

- 1) FABRICATE PER IPC-6012A CLASS 2.
- 2) OUTLINE DEFINED IN SEPARATE GERBER FILE WITH "Edge\_Cuts.GBR" SUFFIX.
- 3) SEE SEPARATE DRILL FILES WITH ".DRL" SUFFIX FOR HOLE LOCATIONS.
- 4) SURFACE FINISH: IMMERSION GOLD
- 5) SOLDERMASK ON BOTH SIDES OF THE BOARD SHALL BE LPI, COLOR BLACK.
- 6) SILK SCREEN LEGEND TO BE APPLIED PER LAYER STACKUP USING YELLOW NON-CONDUCTIVE EPOXY INK.
- 7) VENDOR SHOULD FOLLOW ROHS COMPLIANT PROCESS AND Pb FREE FOR MANUFACTURING
- 8) PCB MATERIAL REQUIREMENTS:
  - A. FLAMMABILITY RATING MUST MEET OR EXCEED UL94V-0 REQUIREMENTS.
  - B. Tg 170 C OR EQUIVALENT.
  - C. EQUIVALENT MATERIAL SHALL BE RoHS COMPLIANT, HALOGEN FREE AND APPROVED BY UNIVERSITY OF NEWCASTLE.
- 9) DESIGN GEOMETRY MINIMUM FEATURE SIZES:

BOARD SIZE	80.000 x 40.000 mm
BOARD THICKNESS	1.660 mm
TRACE WIDTH	0.200 mm
TRACE TO TRACE	-0.000 mm
MIN. HOLE (PTH)	0.250 mm
MIN. HOLE (NPTH)	N/A mm
ANNULAR RING	0.150 mm
COPPER TO HOLE	0.254 mm
COPPER TO EDGE	0.250 mm
HOLE TO HOLE	0.254 mm

All dimensions are in millimeters unless otherwise specified.

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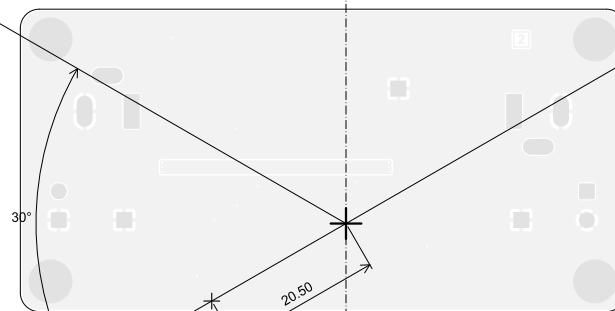
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# INPUT PROTECTION Fabrication DOCUMENT

## Bottom Fabrication (Scale 1:1)



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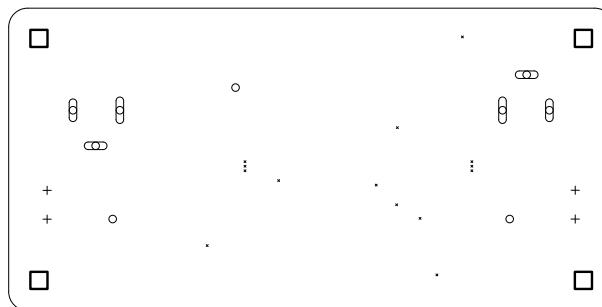
## Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
X	14	0.25mm (9.84mils)	PTH	Round	L1 (Sig, PWR) - L2 (Sig, GND)	Via
O	3 + 6	1.00mm (39.37mils)	PTH	Round + Slot	L1 (Sig, PWR) - L2 (Sig, GND)	Pad
+	4	1.10mm (43.31mils)	PTH	Round	L1 (Sig, PWR) - L2 (Sig, GND)	Pad
D	4	3.20mm (125.98mils)	PTH	Round	L1 (Sig, PWR) - L2 (Sig, GND)	Pad
Total 31						

B

B

## Drill Drawing L1 – L2 (Scale 1:1)



C

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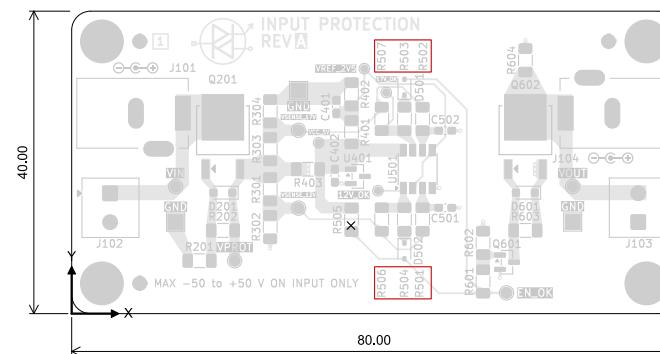
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## Top Test Points (Scale 1:1)



Ref.	Net	X [mm]	Y [mm]
TP101	GND	13.75	12.11
TP102	VIN	13.75	16.80
TP103	VOUT	66.25	16.80
TP104	GND	66.25	12.11
TP201	VPROT	21.55	7.00
TP301	GND	30.00	29.50
TP302	VSENSE_12V	30.00	13.95
TP303	VSENSE_17V	30.00	24.25
TP401	VREF_2V5	38.70	32.40
TP402	-111.57		101.65
TP403	VCC_5V	32.65	22.60
TP501	12V_OK	40.50	16.25
TP502	17V_OK	41.60	29.25
TP503	EN_OK	57.50	2.75

Ref.	Net	X [mm]	Y [mm]

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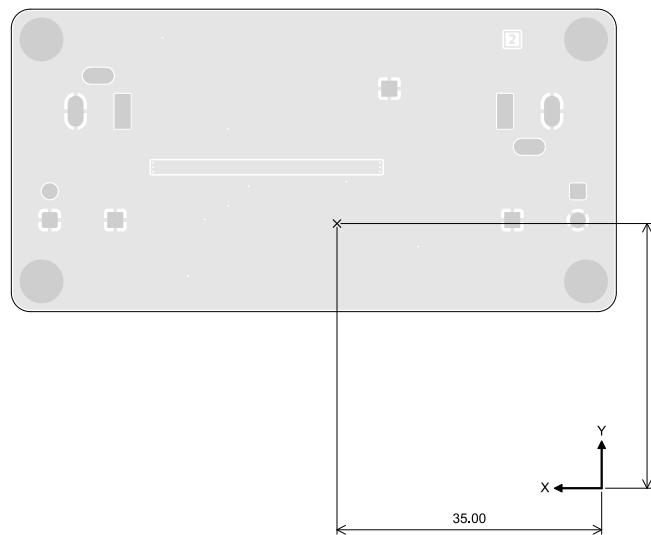
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## Bottom Test Points (Scale 1:1)

Ref.	Net	X [mm]	Y [mm]
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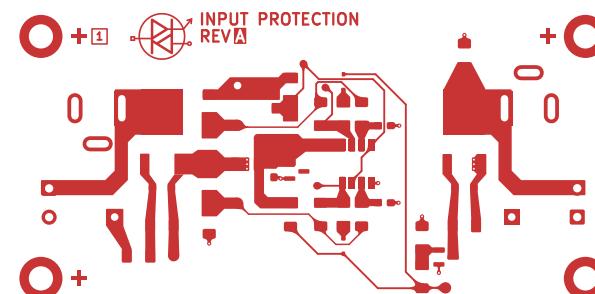
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L1 (Sig, PWR) (Scale 1:1)



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L2 (Sig, GND) (Scale 1:1)



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