

EncoGo Fabrication Document

Layer Stack Legend

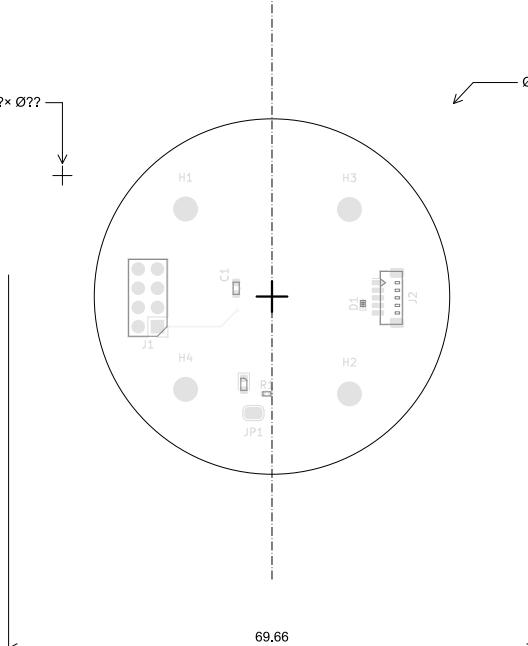
Material	Layer	Thickness	Dielectric	Type	Gerber
	F.Paste			Paste Mask	
	F.Silkscreen		Direct Printing	Legend	GBR
	F.Mask	0.02mm	Solder Resist	Solder Mask	GBR
Copper	L1 (Sig, PWR)	0.07mm (2.00oz)		Signal	GBR
Prepreg		0.1mm	FR4_7628	Dielectric	
Copper	L2 (GND)	0.035mm (1.00oz)		Plane	GBR
Core		1.21mm	FR4	Dielectric	
Copper	L3 (Sig, PWR)	0.035mm (1.00oz)		Signal	GBR
Prepreg		0.1mm	FR4_7628	Dielectric	
Copper	L6 (Sig, PWR)	0.07mm (2.00oz)		Signal	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

Impedance Table

Transmission Line	Impedance [ohms]	Tolerance [ohms]	Layer	Trace Width [mm]	Gap [mm]	Ref. Layers
Edge-Coupled Coated Microstrip	100	±10 %	L1	0.2032	0.28	L2

Top Fabrication (Scale 1:1)



All dimensions are in millimeters unless otherwise specified.

FABRICATION NOTES (UNLESS OTHERWISE SPECIFIED)

- 1) FABRICATE PER IPC-6012A CLASS 2.
- 2) OUTLINE DEFINED IN SEPARATE GERBER FILE WITH "Edge_Cuts.GBR" SUFFIX.
DIMENSIONS OF CIRCUMSIZED RECTANGLE SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- 3) SEE SEPARATE DRILL FILES WITH ".DRL" SUFFIX
SELECTED HOLE LOCATIONS SHOWN ON THIS DRAWING FOR REFERENCE ONLY.
- 4) SURFACE FINISH: IMMERSION GOLD
- 5) SOLDERMASK ON BOTH SIDES OF THE BOARD SHALL BE LPI, COLOR BLUE.
- 6) SILK SCREEN LEGEND TO BE APPLIED PER LAYER STACKUP USING YELLOW NON-CONDUCTIVE EPOXY INK.
- 7) ALL VIAS ARE TENTED ON BOTH SIDES UNLESS SOLDERMASK OPENED IN GERBER.
- 8) VENDOR SHOULD FOLLOW ROHS COMPLIANT PROCESS AND Pb FREE FOR MANUFACTURING
- 9) 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 EVERYFLAVORROBOTICS.

10) DESIGN GEOMETRY MINIMUM FEATURE SIZES:

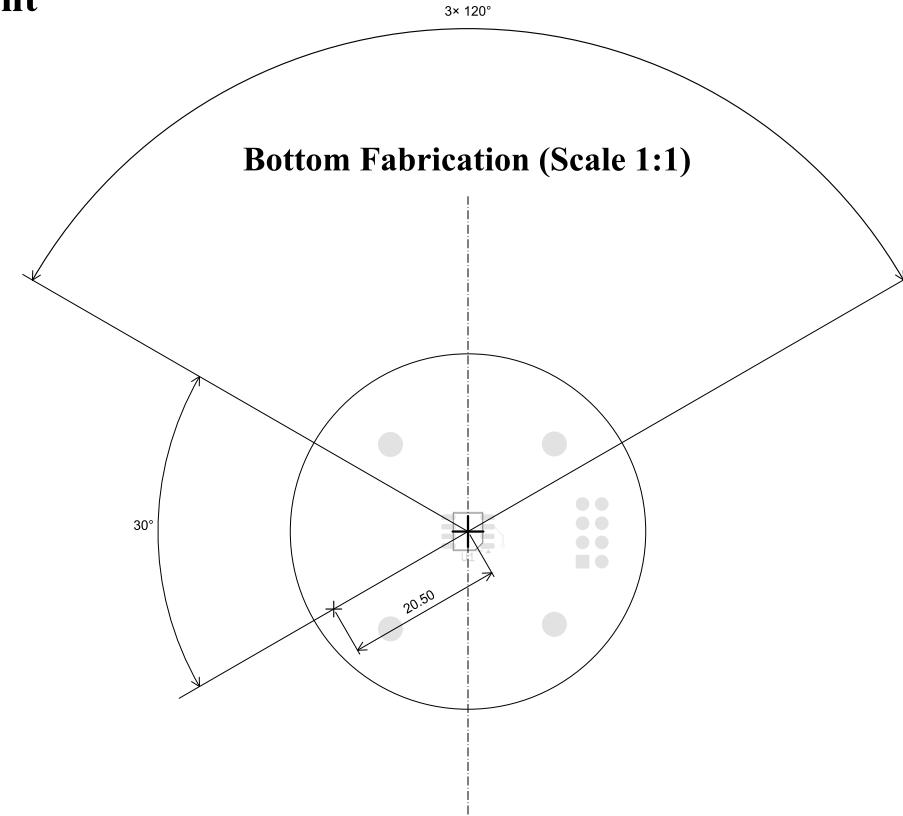
BOARD SIZE	47.003 × 47.003 mm
BOARD THICKNESS	1.660 mm
TRACE WIDTH	0.200 mm
TRACE TO TRACE	0.200 mm
MIN. HOLE (PTH)	0.250 mm
MIN. HOLE (NPTH)	3.200 mm
ANNULAR RING	0.150 mm
COPPER TO HOLE	0.254 mm
COPPER TO EDGE	0.250 mm
HOLE TO HOLE	0.254 mm

11) REFER TO IMPEDANCE TABLE FOR IMPEDANCE CONTROL REQUIREMENTS.

12) CONFIRM SPACE WIDTHS AND SPACINGS.

	Comments:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100
	Board Name: EncoGo	Project Name: CICD-Test		
	Sheet Title: Top Fabrication (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13
	Sheet Path:	Reviewer:	Size: A4	Sheet: 1 of 10

EncoGo Fabrication Document



All dimensions are in millimeters unless otherwise specified.

	Comments:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100
	Board Name: EncoGo	Project Name: CICD-Test		
	Sheet Title: Bottom Fabrication (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13 Revision: 0.1.0+ (Unreleased)
	Sheet Path:		Reviewer:	Size: A4 Sheet: 2 of 10

EncoGo Fabrication Document

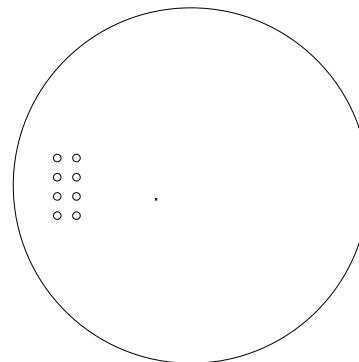
A

A

Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
X	1	0.25mm (9.84mils)	PTH	Round	L1 (Sig, PWR) - L6 (Sig, PWR)	Via
O	8	1.00mm (39.37mils)	PTH	Round	L1 (Sig, PWR) - L6 (Sig, PWR)	Pad
Total 9						

Drill Drawing L1 - L4 (Scale 1:1)



B

B

C

C

D

D

	Comments:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100
	Board Name: EncoGo	Project Name: CICD-Test		
	Sheet Title: Drill Drawing (L1 - L4)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13 Revision: 0.1.0+ (Unreleased)
	Sheet Path:		Reviewer:	Size: A4 Sheet: 3 of 10

EncoGo Fabrication Document

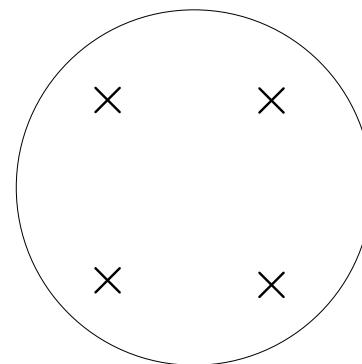
A

A

Drill Table

Symbol	Count	Hole Size	Plated	Hole Shape	Drill Layer Pair	Hole Type
X	4	3.20mm (125.98mils)	NPTH	Round	L1 (Sig, PWR) - L6 (Sig, PWR)	Mechanical
Total 4						

Drill Drawing L1 - L4 (Scale 1:1)



B

B

C

C

D

D

	Comments: 	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100
	Board Name: EncoGo			Project Name: CICD-Test
	Sheet Title: Drill Drawing (L1 - L4)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13 Revision: 0.1.0+ (Unreleased)
	Sheet Path:		Reviewer:	Size: A4 Sheet: 4 of 10

EncoGo Fabrication Document

A

A

B

B

C

C

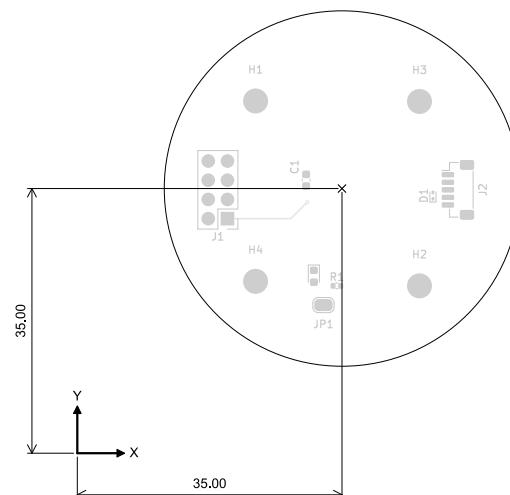
D

D

Top Test Points (Scale 1:1)

Ref.	Net	X [mm]	Y [mm]

Ref.	Net	X [mm]	Y [mm]



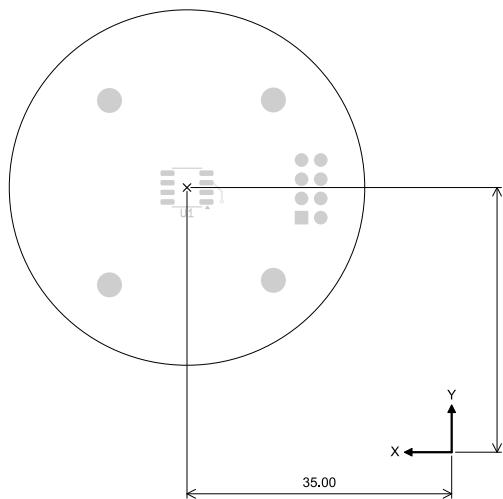
All dimensions are in millimeters unless otherwise specified.

	Comments:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100
	Board Name: EncoGo	Project Name: CICD-Test		
	Sheet Title: Top Test Points (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13 Revision: 0.1.0+ (Unreleased)
	Sheet Path:	Reviewer:		Size: A4 Sheet: 5 of 10

EncoGo Fabrication Document

Bottom Test Points (Scale 1:1)

Ref.	Net	X [mm]	Y [mm]
------	-----	--------	--------

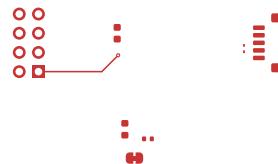


All dimensions are in millimeters unless otherwise specified.

	Comments:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100
	Board Name: EncoGo	Project Name: CICD-Test		
	Sheet Title: Bottom Test Points (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13 Revision: 0.1.0+ (Unreleased)
	Sheet Path:		Reviewer:	Size: A4 Sheet: 6 of 10

EncoGo Fabrication Document

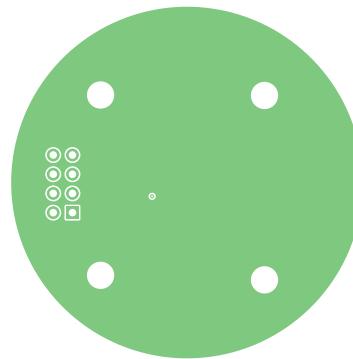
L1 (Sig, PWR) (Scale 1:1)



	Comments:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100
	Board Name: EncoGo	Project Name: CICD-Test		
	Sheet Title: L1 (Sig, PWR) (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13 Revision: 0.1.0+ (Unreleased)
	Sheet Path:		Reviewer:	Size: A4 Sheet: 7 of 10

EncoGo Fabrication Document

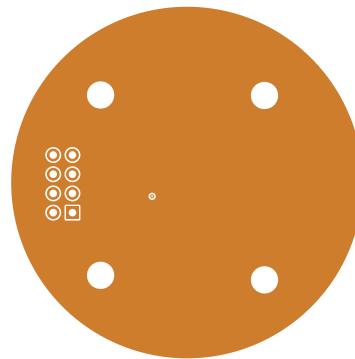
L2 (GND) (Scale 1:1)



		Comments:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100	
		Board Name: EncoGo	Project Name: CICD-Test			
		Sheet Title: L2 (GND) (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
		Sheet Path: 		Reviewer: 	Size: A4	Sheet: 8 of 10

EncoGo Fabrication Document

L3 (Sig, PWR) (Scale 1:1)



		Comments:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100	
		Board Name: EncoGo	Project Name: CICD-Test			
		Sheet Title: L3 (Sig, PWR) (Scale 1:1)	File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13	Revision: 0.1.0+ (Unreleased)
		Sheet Path:		Reviewer:	Size: A4	Sheet: 9 of 10

EncoGo Fabrication Document

L6 (Sig, PWR) (Scale 1:1)



		Comments: Sheet Title: L6 (Sig, PWR) (Scale 1:1) Sheet Path:	Company: EveryFlavorRobotics	Variant: PRELIMINARY	Git Hash: b507100
			Board Name: EncoGo	Project Name: CICD-Test	
			File Name: kibot-test-cicd.kicad_pcb	Designer: Alexchunlin	Date: 2024-04-13 Revision: 0.1.0+ (Unreleased)
			Reviewer:	Size: A4	Sheet: 10 of 10