REV	DESCRIPTION	ECO	DATE
A1	INITIAL RELEASE	1004	

NOTES:
1. DIMENSIONS ARE IN MILLIMETERS.

2. MANUFACTURING SPECIFICATIONS:
ADDITIONAL OPTIONS AVAILABLE UPON REQUEST.

2.1 BASE MATERIAL: FR4-TG130

2.2 LAYERS: TWO (2)

2.3 COPPER WEIGHT:
DEFAULT:
- ONE OUNCE (1 oz)

AVAILABLE UPON REQUEST:
- TWO OUNCE (2 oz)

2.4 PIECES PER PANEL: FOUR (4)

2.5 PCB THICKNESS:
DEFAULT:
- 1.60 MM

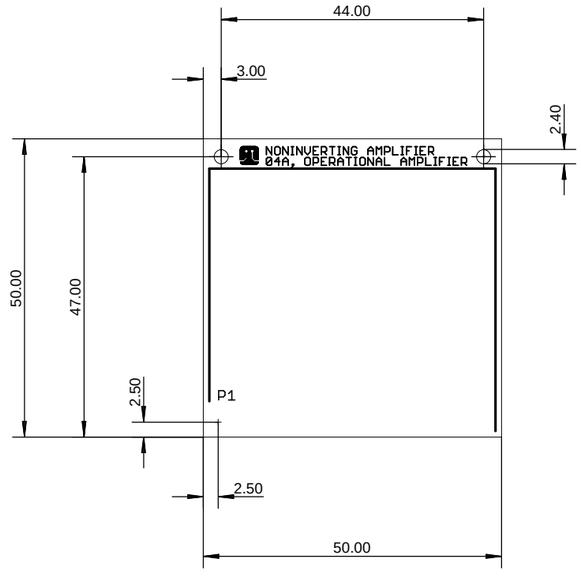
AVAILABLE UPON REQUEST:
- 0.6 MM
- 0.8 MM
- 1.0 MM
- 1.2 MM
- 2.0 MM

2.6 PCB COLOR:
DEFAULT:
- GREEN

AVAILABLE UPON REQUEST:
- RED
- YELLOW
- BLUE
- WHITE
- BLACK
- MATTE BLACK

2.7 SURFACE FINISH:
DEFAULT:
- HOT AIR SOLDER LEVELED (HASL)

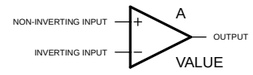
AVAILABLE UPON REQUEST:
- LEAD FREE HOT AIR SOLDER LEVELED (HASL LEAD FREE)
- ELECTROLESS NICKEL IMMERSION GOLD (ENIG)
- ORGANIC SOLDERABILITY PRESERVATIVES (OSP)

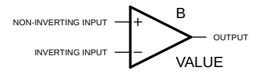


DUAL OPAMP

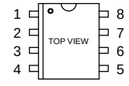
SOIC8, DIP8

SCHEMATIC SYMBOL





PINOUT



PIN	DESCRIPTION
1	OUTPUT, A
2	INVERTING INPUT, A
3	NON-INVERTING INPUT, A
4	-V SUPPLY
5	NON-INVERTING INPUT, B
6	INVERTING INPUT, B
7	OUTPUT, B
8	+V SUPPLY

DATETIME STAMP 9/7/2023 7:28 AM

DR	DATE
N. MANTEUFEL	04SEP2022
ENG	DATE
QA	DATE

mnPCB

TITLE
NON-INVERTING AMPLIFIER

PRINTED CIRCUIT BOARD
OPERATIONAL AMPLIFIER
DUAL OPAMP CIRCUIT
SINGLE SUPPLY, DC BIAS TRIMMER

SIZE	DWG NO	REV
B	04A-010	A1
SCALE NONE	SHEET 1/2	

NOTES:
3. PROCEDURE: SAFE TO TURN ON (STTO) TEST:
3.1 MEASURE RESISTANCE:
- MEASURE RESISTANCE BETWEEN P1-2 AND P1-1.

3.2 DETERMINE RESULT:
- SEVERAL HUNDRED OHMS IS TYPICAL.

4. PROCEDURE: ADJUST DC BIAS:
- PERFORM AFTER PASSING SAFE TO TURN ON (STTO) TEST.

4.1 APPLY POWER:
- DO NOT VIOLATE COMPONENT VOLTAGE RATINGS.

4.2 APPLY STIMULI:
- ALLOW PIN P1-6 TO FLOAT.

4.3 MEASURE RESPONSE:
- MEASURE OUTPUT VOLTAGE DC BIAS.

4.4 ADJUST RESISTOR R2:
- PASS WHEN MEASUREMENT EQUALS HALF OF SUPPLY VOLTAGE.

4.5 DETERMINE RESULT
- PASS WHEN VOLTAGE BETWEEN P1-5 and P1-1 IS HALF OF SUPPLY VOLTAGE.

5. PROCEDURE: ADJUST AC GAIN:
- PERFORM AFTER PASSING DC BIAS ADJUSTMENT PROCEDURE.

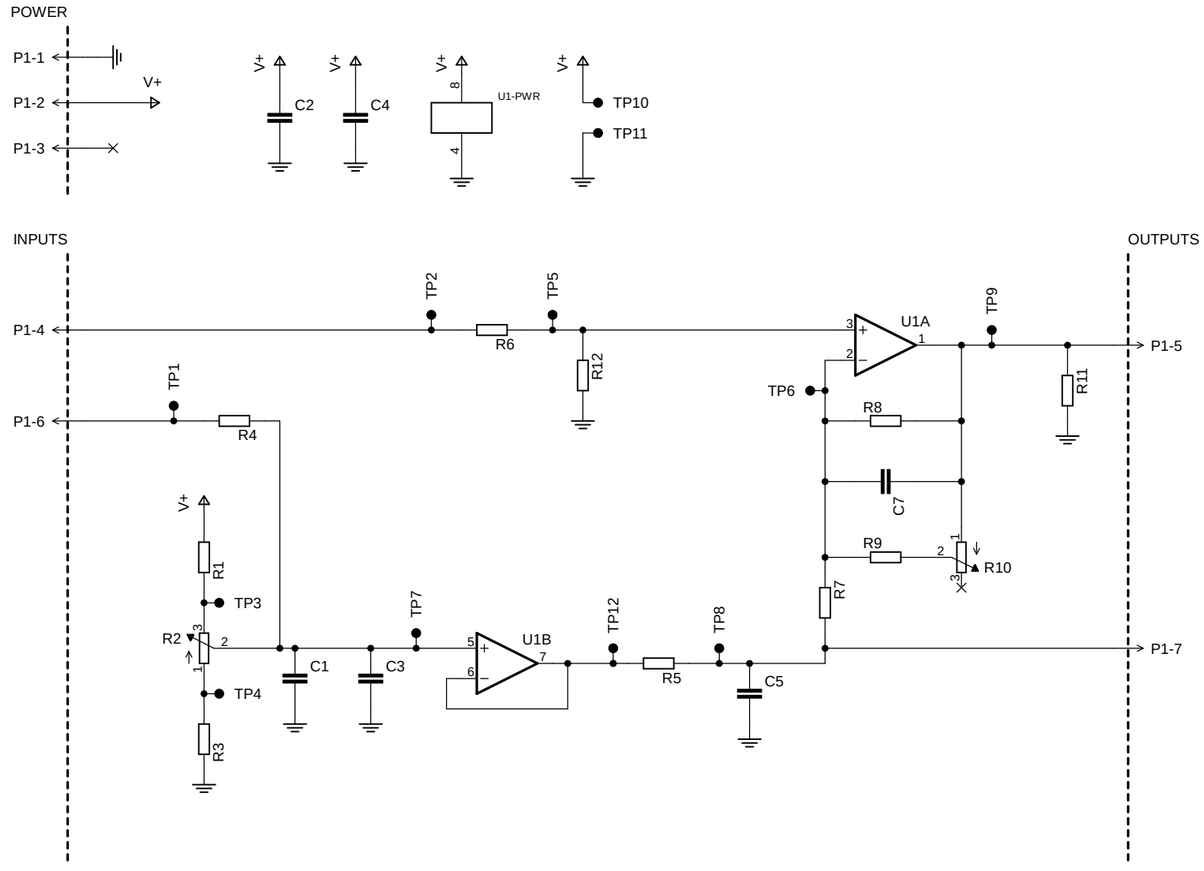
5.1 APPLY POWER:
- DO NOT VIOLATE COMPONENT VOLTAGE RATINGS.

5.2 APPLY STIMULI:
- ALLOW PIN P1-6 TO FLOAT.

5.3 MEASURE RESPONSE:
- MEASURE OUTPUT VOLTAGE DC BIAS.

5.4 ADJUST RESISTOR R10:
- PASS WHEN MEASUREMENT EQUALS HALF OF SUPPLY VOLTAGE.

5.5 DETERMINE RESULT
- PASS WHEN VOLTAGE GAIN BETWEEN INPUT AND OUTPUT IS WITHIN ACCEPTANCE CRITERIA.



THIS DRAWING AND THE INFORMATION IT CONTAINS IS PROVIDED FOR EDUCATIONAL USE ONLY.

TITLE	NON-INVERTING AMPLIFIER		
SIZE	DWG NO		REV
B	04A-010		A1
SCALE	NONE	SHEET	2/2