



AA-AK32261

2x150mW Class AB

DIY Headphone Amplifier Board Kit - LM4881

Created the LM4881 dual headphone amplifier integrated circuit, known for its high-quality Class AB output achieved with minimal components. It is versatile, operating with power supplies ranging from 8 to 24 VDC without requiring a heat sink.

Features:

- Class AB output utilizing the LM4881 integrated circuit.
- Switchable gain allows for up to 150 mW of power per channel.
- Capable of powering 8-ohm speakers
- Functions with a voltage range of 8 to 24 volts DC.

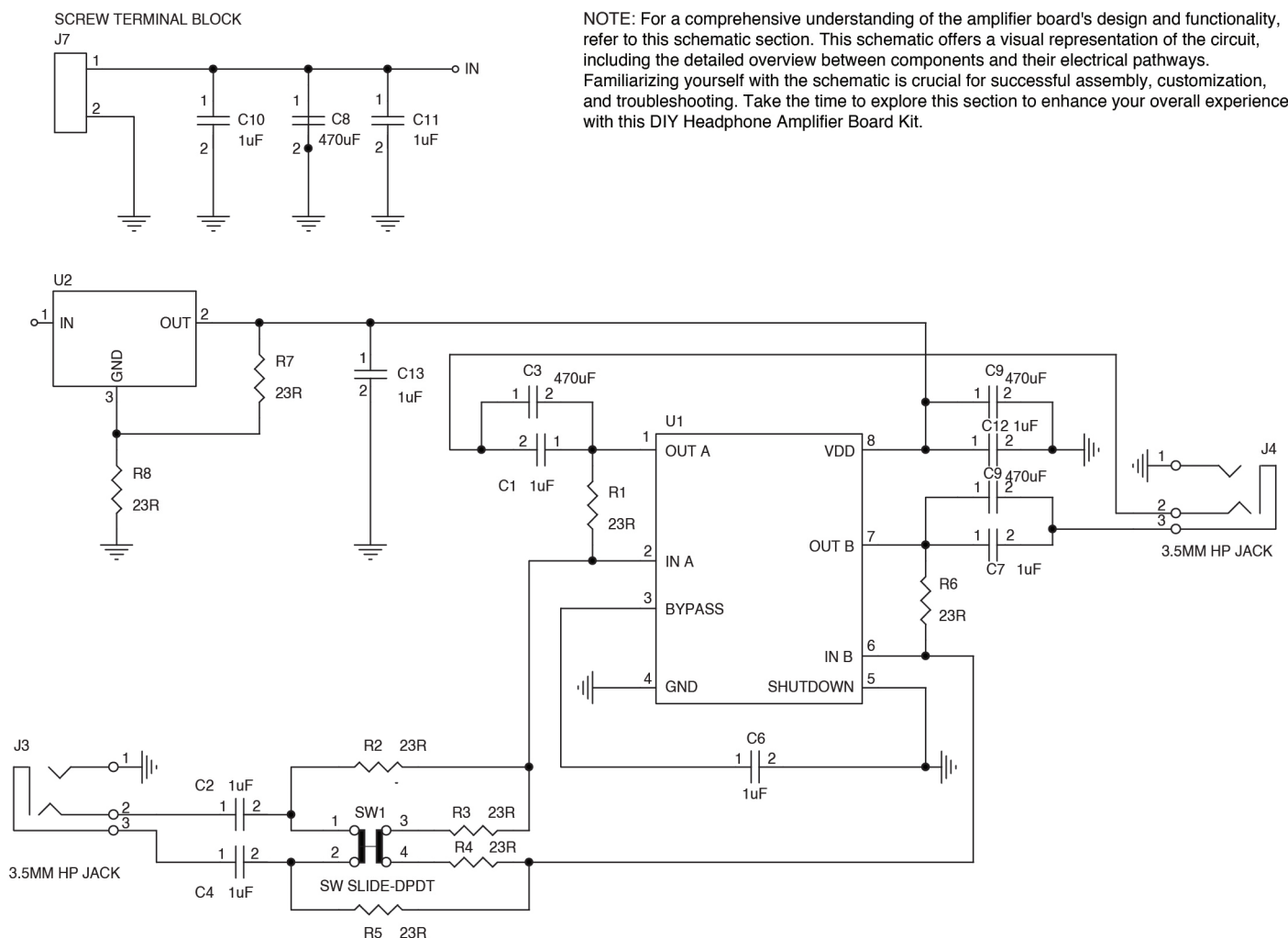
Application

- Education Purpose
- DIY Project
- Headphone amplifier



Schematic

(Nominal Dimensions, mm(inch))

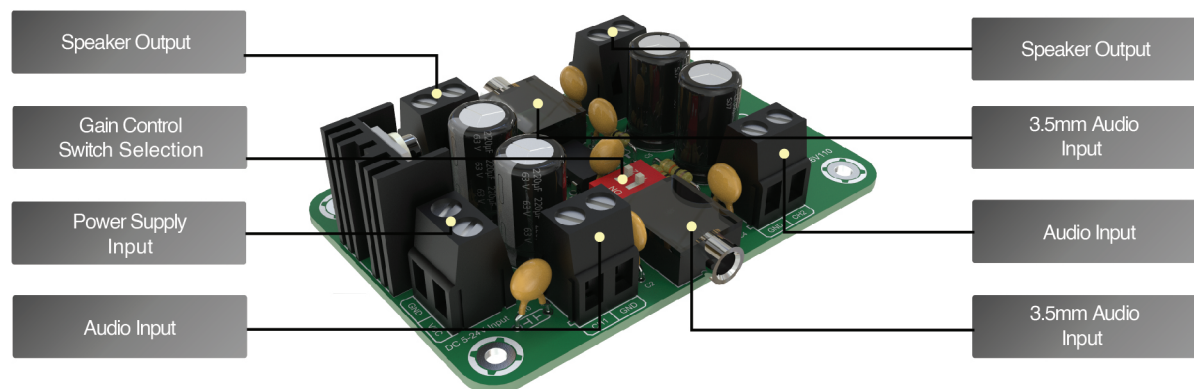




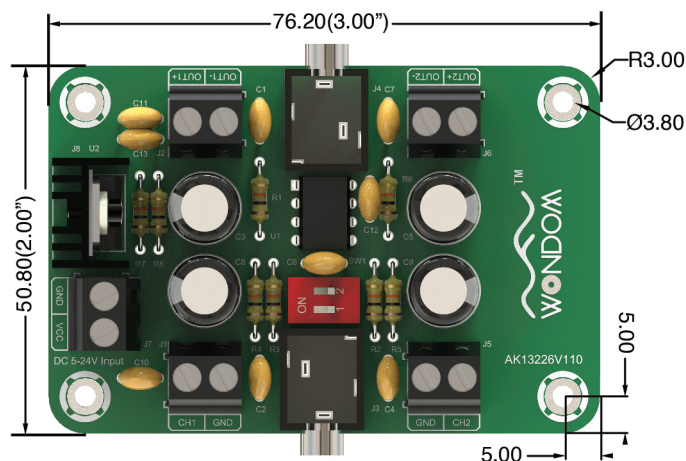
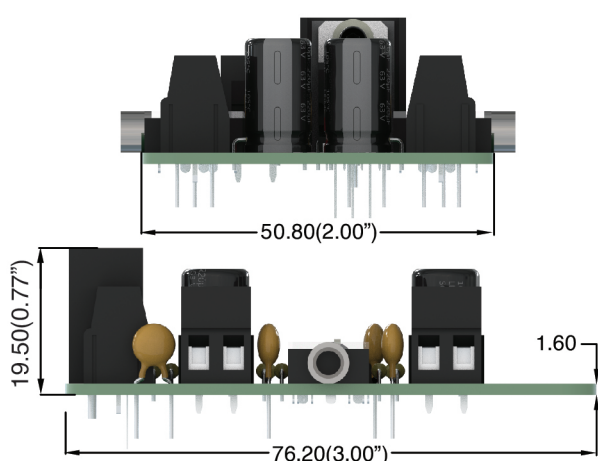
Parameters:

Supply Voltage	8V to 24V DC
Output Power	2x150mW
Output Channel	Screw Terminal Block 2 Pin 5.08mm Pitch

Audio Input	3.5mm Audio Jack
Weight	106g
Product Size	76.20(3.00") x 50.80(2.00") x 19.50(0.77") mm(inch)

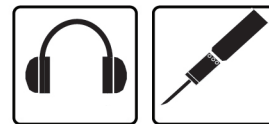


Mechanical Drawing (Nominal Dimensions, mm(inch))

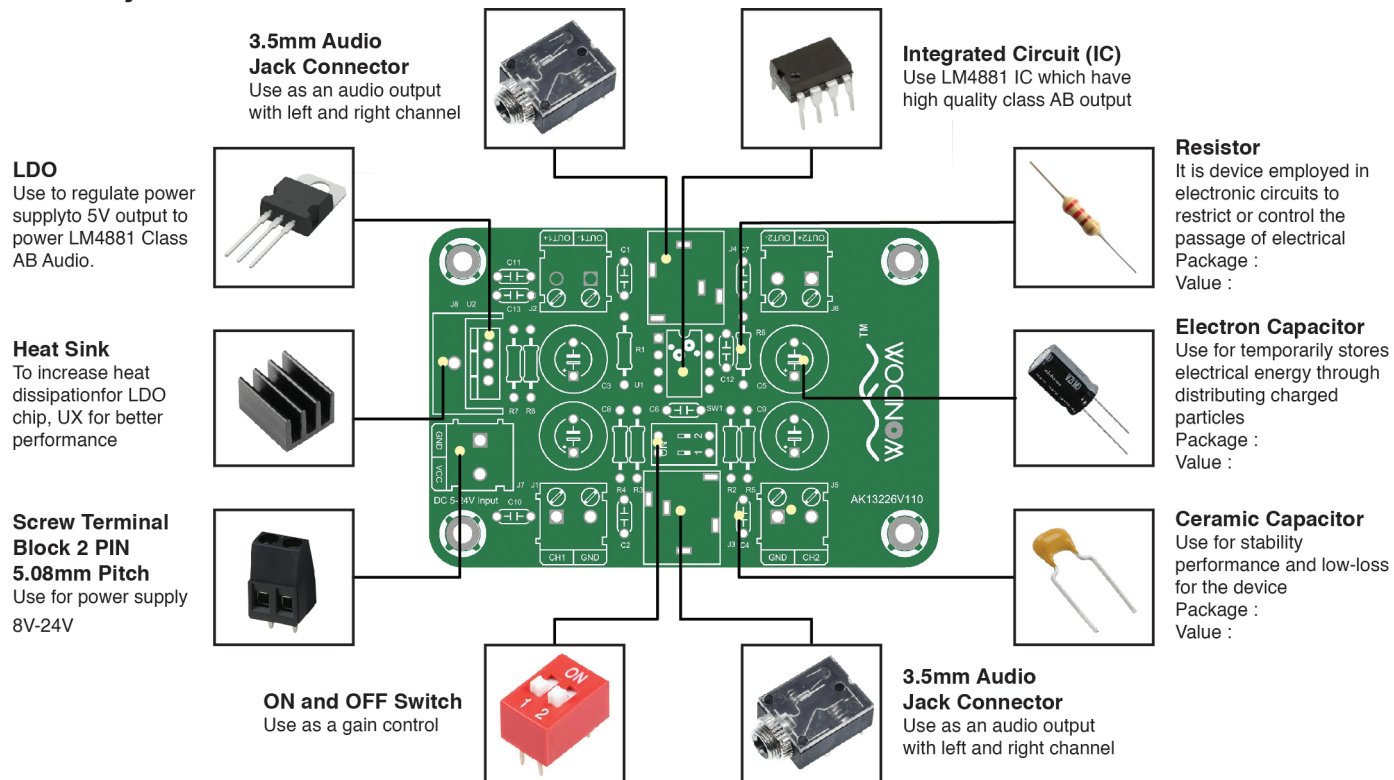


Installation Summary

- 1 Install Resistor**
Place resistors on the board according to their respective positions.
- 2 Install Electron & Ceramic Capacitors**
Note the polarity of electrolytic capacitors (+) and (-) leads. Ceramic capacitors are non-polarized, so orientation doesn't matter.
- 3 Install Components**
Place the Audio Jack Connector, Screw Terminal Block and ON/OFF Switch. Verify correct orientation and alignment.
- 4 Heatsink Assembly:**
Assemble TMI, LDO, and nylon screw insulator together. Securely screw the components to form a unified structure. Attach the assembled heatsink to the specified area on the board.
- 5 Install LM4881 IC:**
Identify correct IC type and orientation. Double-check alignment to prevent damage.



Ports Layouts



NOTE: Please be aware that your package includes only one Screw Terminal Block (2 Pin, 5.08mm Pitch) for power input. You can purchase separately if you need additional terminal blocks for your specific setup.

Electrical & Audio Performance Parameters

AA-AK32261 Electrical Performance Parameters

Parameter	Conditions	Min.	Typ.	Max.	Units
Efficiency	-	-	-	-	%
Power Supply Voltage, V _{DD}	-	5	-	24	V
Quiescent Current, I _{DD}	V _{IN} = 0V, I _O = 0V	-	3.6	6.0	V
Output Power, P _O	THD = 0.1% (max), f = 1kHz, R _L = 8 ohms	125	150	-	mW
	THD = 0.1% (max), f = 1kHz, R _L = 16 ohms	-	120	-	
	THD = 0.1% (max), f = 1kHz, R _L = 32 ohms	-	75	-	
Power Consumption	1/4 of max output power @4Ω, 1kHz, 24V	-	240	-	W

AA-AK32261 Audio Performance Parameters

Parameter	Conditions	Min.	Typ.	Max.	Units
Output Noise Level	-	-	-	-	uV
PSSR	C _B = 1.0uF, V _{RIIPPLE} = 200m Vrms, f = 120Hz	-	50	-	dB
THD+N	R _L = 16 ohms, P _O = 120m Wrms	-	0.025	-	%
	R _L = 32ohms, P _O = 75m Wrms, f = 120Hz	-	0.2	-	



What Include In The Package



Warranty Terms and Product Usage Restrictions

Wondom products come with a one-year warranty starting from the date of purchase. Customers are responsible for the cost of returning the goods to the seller, and by making a purchase, you agree to this condition. Due to the nature of DIY products, visible damage or use on screw holes or tinning of solder pads directly invalidates the warranty. Damage caused by the use of incorrect power sources, such as exceeding the specified voltage range or reverse polarity, is not covered under warranty. All Wondom products undergo thorough testing before shipment. We do not accept bulk returns after a bulk purchase. If you are unsure of the quantity you need, please purchase the appropriate quantity as needed. All Wondom products are intended for DIY use only and do not support any industrial applications. The rated operating temperature range is -10-50°C.

Distributed by:



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Retail Purchases: For individual purchases, you can only buy our product through our authorized distributor platforms. Please note that the listed prices on these platforms may change over time.

Bundled Pricing for 100 Units: When you buy a minimum of 100 units in one transaction, you may qualify for a special bundled price for that quantity.

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Standard Price List: For orders of 500 units or more, you can request our standard price list by reaching out to our customer support.

Pricing for Bulk vs. Bundled: It's important to note that the price for buying in bulk is not significantly different from the bundled price for 100 units.

Origin and Design Location

All Wondom products are designed, manufactured, assembled, and shipped from China. The products' country of origin is China. We do not provide any services for sales, shipping, or manufacturing from other regions.