

Bill of Materials

TI DESIGNS
TIPD186: Tone Stack for Guitar Amplifier

Item #	Quantity	Value	Designator	Description	Manufacturer	Part Number
1	2	470p	C1, C3	CAP CER 470PF 50V 5% NP0 0603	Samsung Electro-Mechanics America	CL10C471JB8NCNC
2	2	100n	C2, C6	CAP CER 0.1UF 50V 10% X7R 0603	Samsung Electro-Mechanics America	CL10B104KB8SFNC
3	5	10u	C4, C5, C10-C12	CAP CER 10UF 35V 10% X7R 1206	Samsung Electro-Mechanics America	CL31B106KLHNNNE
4		68p	C7	CAP CER 68PF 50V 5% NP0 0603	Samsung Electro-Mechanics America	CL10C680JB8NCNC
5	2	22n	C8, C9	CAP CER 0.022UF 50V 5% NP0 1206	TDK Corporation	C3216C0G1H223J060AA
6	2	1k	R1, R2	RES SMD 1K OHM 1% 1/10W 0603	Panasonic Electronic Components	ERJ-3EKF1001V
7	1	33k	R3	RES SMD 33K OHM 1% 1/10W 0603	Panasonic Electronic Components	ERJ-3EKF3302V
8	1	499k	R4	RES SMD 499K OHM 1% 1/10W 0603	Panasonic Electronic Components	ERJ-3EKF4993V
9	1	2.49k	R7	RES SMD 2.49K OHM 1% 1/8W 0805	Panasonic Electronic Components	ERJ-6ENF2491V
10	1	392	R8	RES SMD 392 OHM 1% 1/8W 0805	Panasonic Electronic Components	ERJ-6ENF3920V
11	2	25k	P1, P4	25K LINEAR POT RIGHT ANGLE PC MOUNT	Alpha	RV16AF-41-15R1-B25K
12	1	250k	P2	250K LINEAR POT RIGHT ANGLE PC MOUNT	Alpha	RV16AF-41-15R1-B250K
13	1	1M	P3	1M LOG POT RIGHT ANGLE PC MOUNT	Alpha	RV16AF-41-15R1-A1M
14	3	KNOB	N/A	BLK ALUM KNURLED KNOB 15MM X 13MM	Unknown	4SKA-15X13KBK
15	1	LED	LED1	LED BLUE CLEAR 3MM 470NM	KingBright	WP710A10QBC/D
16	1	OPA1642	U1	OPA1642 SOUND-PLUS OP AMP	Texas Instruments	OPA1642AID
17	3	BANANA	J5-J7	CONN JACK BANANA UNINS PANEL MOU	Emerson Network Power	108-0740-001
18	2	RCA	J1, J2	CONN RCA JACK METAL R/A BLK PCB	CUI Inc	RCJ-011
19	2	PHONO PLUG	J3, J4	CONN JACK PHONE 1/4" 2POS RA OPN	Switchcraft Inc.	RN111PC
20	1	JUMPER	JMP1	CONN HEADER 2POS .100" SGL GOLD	Samtec	TSW-102-07-G-S
21	1	JUMPER SHUNT	JMP1	JUMPER SHORTING UNITS	TE Connectivity	881545-2
22	4	SCREW	Screws	SCREW MACHINE PHILLIPS 4-40X3/8	B&F Fastener Supply	PMS 440 0038 PH
23	4	STANDOFF	H1-H4	STANDOFF HEX 4-40THR ALUM .500"L	Keystone Electronics	2203
24	1	DNP	R5, R6	DO NOT POPULATE	n/a	N/A

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Buyers") who are developing systems that incorporate TI semiconductor products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products.

TI reference designs have been created using standard laboratory conditions and engineering practices. TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design. TI may make corrections, enhancements, improvements and other changes to its reference designs.

Buyers are authorized to use TI reference designs with the TI component(s) identified in each particular reference design and to modify the reference design in the development of their end products. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN, including but not limited to any patent right, copyright, mask work right, or other intellectual property right relating to any combination, machine, or process in which TI components or services are used. Information published by TI regarding third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

TI REFERENCE DESIGNS ARE PROVIDED "AS IS". TI MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. TI DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO TI REFERENCE DESIGNS OR USE THEREOF. TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY BUYERS AGAINST ANY THIRD PARTY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON A COMBINATION OF COMPONENTS PROVIDED IN A TI REFERENCE DESIGN. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING IN ANY WAY OUT OF TI REFERENCE DESIGNS OR BUYER'S USE OF TI REFERENCE DESIGNS.

TI reserves the right to make corrections, enhancements, improvements and other changes to its semiconductor products and services per JESD46, latest issue, and to discontinue any product or service per JESD48, latest issue. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All semiconductor products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its components to the specifications applicable at the time of sale, in accordance with the warranty in TI's terms and conditions of sale of semiconductor products. Testing and other quality control techniques for TI components are used to the extent TI deems necessary to support this warranty. Except where mandated by applicable law, testing of all parameters of each component is not necessarily performed.

TI assumes no liability for applications assistance or the design of Buyers' products. Buyers are responsible for their products and applications using TI components. To minimize the risks associated with Buyers' products and applications, Buyers should provide adequate design and operating safeguards.

Reproduction of significant portions of TI information in TI data books, data sheets or reference designs is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. TI is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Buyer acknowledges and agrees that it is solely responsible for compliance with all legal, regulatory and safety-related requirements concerning its products, and any use of TI components in its applications, notwithstanding any applications-related information or support that may be provided by TI. Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous failures, monitor failures and their consequences, lessen the likelihood of dangerous failures and take appropriate remedial actions. Buyer will fully indemnify TI and its representatives against any damages arising out of the use of any TI components in Buyer's safety-critical applications.

In some cases, TI components may be promoted specifically to facilitate safety-related applications. With such components, TI's goal is to help enable customers to design and create their own end-product solutions that meet applicable functional safety standards and requirements. Nonetheless, such components are subject to these terms.

No TI components are authorized for use in FDA Class III (or similar life-critical medical equipment) unless authorized officers of the parties have executed an agreement specifically governing such use.

Only those TI components that TI has specifically designated as military grade or "enhanced plastic" are designed and intended for use in military/aerospace applications or environments. Buyer acknowledges and agrees that any military or aerospace use of TI components that have *not* been so designated is solely at Buyer's risk, and Buyer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.