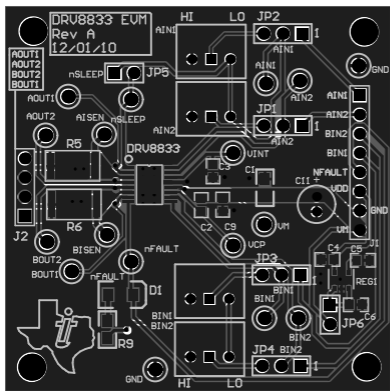


2000.00



Top Layer  
Bottom Layer

2000.00

**Bill of Materials**
**TI Designs**

TIDM-TM4CSTEPPER MOTOR

DRV8833 EVM

Item	Ref	Qty	Description	Mfg	Part Number
1	C1	1	Capacitor	TDK Corporation	C2012X5R1C106M
2	C2, C4	2	Capacitor	TDK Corporation	C1608X5R0J225K
3	C3, C5	2	Capacitor	Murata Electronics North Americ, Murata Electronics North America	GRM188R71E103KA01D
4	C6	1	Capacitor	TDK Corporation	C1608Y5V1C105Z
5	C9	1	Capacitor	TDK Corporation	C1608X7R1E104K
6	C11	1	Polarized Capacitor (Radial)	Nichicon	RNE1C101MDS1PX
7	D1	1	LED RED CLEAR 1206 SMD	Stanley Electric & Co	HBR1105W-TR
8	J1	1	Header, 8-Pin	Phoenix Contact	1945151
9	J2	1	Header, 4-Pin	Phoenix Contact	1945119
10	JP1, JP2, JP3, JP4	4	Three Pin Jumper	Phoenix Contact	1945106
11	JP5, JP6	2	Two Pin Jumper	Phoenix Contact	1945096
12	R5, R6	2	Resistor	Vishay/Dale (VA)	WSL2512R1500FEA
13	R9	1	Resistor	Stackpole Electronics Inc	RNCP0805FTD499R
14	REG1	1	VoltageRegulator	Texas Instruments	LP2985-50DBVR
15	S1, S2, S3, S4	4	SPDT ON OFF ON	NKK Switches	B13AP
16	TP1, TP2, TP3, TP4, TP6, TP7, TP8, TP10, TP11, TP13, TP14, TP15, TP16, TP17	14	Glass Beaded Test Point	Kobiconn	151-101-RC
17	TP5, TP9	2	Glass Beaded Test Point	Kobiconn	151-103-RC
18	TP12	1	Glass Beaded Test Point	Kobiconn	151-107-RC
19	U1	1	Dual H Bridge	Texas Instruments	DRV8833PWP

Item	Ref	Qty	Description	Mfg	Part Number
1	C1 C2 C7 C12, C14	5	Capacitor, 0402, X5R, 10V, Low ESR	Johanson Dielectrics Inc	100R07X105KV4T
2	C25 C26 C31 C32	4	Capacitor, 10pF, 50V, 5%, NPO/COG, 0402	Murata	GRM1555C1H100JZ01D
3	C28 C29	2	Capacitor, 24pF, 50V, 5%, NPO/COG, 0402	TDK	C1005C0G1H240J
4	C3 C5 C8 C15 C18 C19 C21	7	Capacitor, 0.01uF 25V, 10% 0402 X7R	Taiyo Yuden	TMK105B7103KV-F
5	C4 C6 C10 C11 C17 C20 C23 C24	8	Capacitor, 0.1uF 16V, 10% 0402 X7R	Taiyo Yuden	EMK105B7104KV-F
6	C9 C22	2	Capacitor, 2.2uF, 16V, 10%, 0603, X5R	Murata	GRM188R61C225KE15D
7	D1	1	LED, Tri-Color RGB, 0404 SMD Common Anode	Everlight	18-038/RSGHBHC1-S02/2T
8	D4	1	LED, Green 565nm, Clear 0805 SMD	Lite-On	LTST-C171GKT
				Lite-On	LTST-C171GKT
9	H24	1	Header, 1x2, 0.100, T-Hole, Vertical Unshrouded, 0.220 Mate	FCI	68001-102HLF
				Anyone	1x2-head
10	H25	1	Jumper, 0.100, Gold, Black, Closed	Sullins	SPC02SYAN
11	J1 J3	2	Header, 2x10, T-Hole Vertical unshrouded stacking	Samtec	SSW-110-23-S-D
12	J11	1		Hirose	ZX62-B-5PA
13	J2 J4	2	Header, 2x10, 0.100, SMT, Horizontal Unshrouded, 0.230 Mate	Samtec	TSM-110-01-S-DH-A-P-TR
				4UCON	10995
				Major League Electronics	TSHSM-110-D-02-T-H-AP-TR-P-LF
14	J9	1	Connector, USB micro AB Receptacle SMD	Hirose	ZX62-AB-5PA(11)
				Hirose	ZX62-AB-5PA
15	Q1 Q2 Q3	3	NPN SC70 pre-biased	Diodes Inc	DTC114EET1G
16	R1 R2 R9 R10 R11 R12 R13 R14 R16, R20 R26	11	Resistor, 0 OHM 1/10W 0603 SMD	Panasonic	ERJ-3GEY0R00V
17	R18 R19 R21 R22 R23 R28	6	Resistor, 10k ohm, 1/10W, 5%, 0402 Thick Film	Yageo	RC0402FR-0710KL
18	R3 R4 R5 R8 R27	5	Resistor, 330 ohm, 1/10W, 5%, 0402	Yageo	RC0402FR-07330RL
19	R31	1	Resistor, 1M Ohm 1/10W, 5%, 0402	Rohm	MCRO1MRTF1004
20	RESET SW1 SW2	3	Switch, Tact 6mm SMT, 160gf	Omron	B3S-1000
21	SW3	1	Switch, DPDT, SMT 300 mA*2 @ 6V	C&K Components	JS202011SCQN



Item Number	Quantity	Part Reference	Value	Mfr_Name	Mfr_Part_Number	Description
1	1	C1	1.0pF	Murata Electronics North America	GJM1555C1H1R0BB01D	CAP CER 1PF 50V NPO 0402
2	1	C2	10pF	AVX Corporation	04025U100CAT2A	CAP CER 10PF 50V NPO 0402
3	2	C3 C4	6.2pF	Murata Electronics North America	GRM1555C1H6R2BA01D	CAP CER 6.2PF 50V NPO 0402
4	12	C5 C6 C7 C10 C12 C14 C16 C20 C21 C22 C23 C27	0.1uF	Taiyo Yuden	LMK105BJ104KV-F	CAP CER 0.1UF 10V 10% X5R 0402
5	3	C8 C19 C24	10uF	Murata Electronics North America	GRM188R60J106ME47D	CAP CER 10UF 6.3V 20% X5R 0603
6	1	C9	1.0uF	Murata Electronics North America	GRM155R61A105ME15D	CAP CER 1UF 10V 20% X5R 0402
7	3	C11 C13 C18	4.7uF	Samsung Electro-Mechanics America, Inc	CL05A475MQ5NRNC	CAP CER 4.7UF 6.3V 20% X5R 0402
8	2	C15 C17	22uF	Taiyo Yuden	AMK107BBJ226MAHT	CAP CER 22UF 4V 20% X5R 0603
9	2	C25 C26	10pF	Murata Electronics North America	GRM1555C1H100FA01D	CAP CER 10PF 50V 1% NPO 0402
10	2	C28 C31	10uF	Murata	GRM21BR61A106KE19L	CAP CER 10UF 10V 10% X5R 0805
11	1	C29	15pF	Murata Electronics North America	GRM1555C1H150JA01D	CAP CER 15PF 50V 5% NPO 0402
12	2	C30 C32	100uF	TDK Corpotation	C3216X5R0J107M160AB	CAP CER 100UF 6.3V 20% X5R 1206
13	1	D1	LED	OSRAM Opto Semiconductors Inc	LY Q976-P1S2-36	LED CHIPLED 587NM YLW 0603 SMD
14	1	D2	CD0603-B00340	Bourns Inc	CD0603-B00340	DIODE SCHOTTKY 40V 0.03A 0603
15	2	D3 D4		ON Semiconductor	MBR130T1G	DIODE SCHOTTKY 30V 1A SOD123
16	1	D5	LED	Lumex Opto/Components Inc.	SML-LX0603SRW-TR	LED SUPR RED DIFF 660NM SMD 0603
17	1	D6	LED	OSRAM Opto Semiconductors Inc	LG Q971-KN-1	LED CHIPLED 570NM GREEN 0603 SMD
18	1	E1	2.45GHz Ant	Taiyo Yuden	AH316M245001-T	ANT BLUETOOTH W-LAN ZIGBEE WIMAX
19	1	FL1	2.4GHz Filter	TDK-Epcos	DEA202450BT-1294C1-H	FILTER BANDPASS 2.45GHZ WLAN SMD
20	1	J2	CONN_U.FL	Emerson Network Power Connectivity Johnson	128-0711-201	CONN UMC RCPT STR 50 OHM SMD
21	1	J3	RF SWITCH	Murata	MM8030-2610RJ3	CONN SWG JACK STR 50 OHM SMD
22	2	J5 J6	HEADER_2	TE Connectivity	5-146285-2	CONN HEADR BRKWAY .100 2POS STR
23	1	J7	CONN_MICRO_USB	FCI	10118194-0001LF	CONN USB MICRO B RECPT SMT R/A
24	1	J8	HEADER_3	TE Connectivity	5-146282-3	CONN HDR BRKWAY .100 3POS VERT
25	2	J9 J10	CONN_RCPT_10x2	Samtec	SSQ-110-03-G-D	CONN RCPT .100" 20POS DUAL GOLD
26	1	L1	3.6nH	Murata Electronics North America	LQP15MN3N6B02D	INDUCTOR 3.6NH 0.1NH 0402
27	2	L3 L5	2.2uH	Murata Electronics North America	LQM2HPN2R2MG0L	INDUCTOR 2.2UH 20% 1300MA 1008
28	1	L4	1uH	Murata	LQM2HPN1R0MJ0L	INDUCTOR POWER 1.0UH 1007
29	2	L7 L8	BEAD_FERRITE	Laird-Signal Integrity Products	MI0805K400R-10	FERRITE 1.5A 40 OHM 0805 SMD
30	2	Q1 Q2	BSS138LT3G	On Semi	BSS138LT3G	MOSFET N-CH 50V 200MA SOT-23

31	3	R1 R47 R49	270	Panasonic Electronic Components	ERJ-3GEYJ271V	RES 270 OHM 1/10W 5% 0603 SMD
32	5	R2 R10 R13 R19 R296	10k	Yageo	RC0402JR-0710KL	RES 10K OHM 1/16W 5% 0402 SMD
33	2	R3 R48	100R	Panasonic - ECG	ERJ-2GEJ101X	RES 100 OHM 1/10W 5% 0402 SMD
34	14	R4 R6 R11 R14 R16 R20 R21 R23 R24 R25 R26 R29 R36 R41	0 R	Panasonic Electronic Components	ERJ-2GE0R00X	RES 0.0 OHM 1/10W JUMP 0402 SMD
35	8	R12 R17 R18 R286 R287 R288 R290 R295	100k	Yageo	RC0402JR-07100KL	RES 100K OHM 1/16W 5% 0402 SMD
36	2	R15 R44	1k	Yageo	RC0402JR-071KL	RES 1.0K OHM 1/16W 5% 0402 SMD
37	1	R22	1k	TE Connectivity	1-1622826-8	RES 1.00K OHM 1/16W 5% 0402
38	2	R31 R46	33k	Yageo	RC0402FR-0733KL	RES 33.0K OHM 1/16W 1% 0402 SMD
39	1	R35	0.1	Panasonic Electronic Components	ERJ-3RSJR10V	RES 0.1 OHM 1/10W 5% 0603 SMD
40	1	R43	30.1K	Yageo	RC0402FR-0730K1L	RES 30.1K OHM 1/16W 1% 0402 SMD
41	1	R45	51K	Samsung	RC1005F513CS	RES 51K OHM 1/16W 1% 0402
42	1	R51	DNP	DNP	DNP	DO NOT MOUNT
43	3	SW1 SW2 SW3	SW TACT	Panasonic	EVQ-11A04M	SWITCH TACTILE SPST-NO 0.02A 15V
44	1	TP1	TP_1206	TE Connectivity	1625854-4	1206 PROBE PAD
45	1	U1	8M (1M x 8)	Winbond	W25Q80BLSNIG	IC FLASH 8MBIT 75MHZ 8SO
46	1	U3	CC3100	Texas Instruments	CC3100R	802.11bg Wifi Processor
47	1	U4	TPS79601	TEXAS INSTRUMENTS INC	TPS79601DCQR	IC,VREG,LDO,1.2V-5.5V,2.7V-5.5V,6PIN,SOT-223
48	1	Y1	Crystal	Epson	Q24FA20H00396	CRYSTAL 40MHZ 8PF SMD
49	1	Y3	Crystal	Abracon Corporation	ABS07-32.768KHZ-T	CRYSTAL 32.768KHZ 12.5PF SMD

## IMPORTANT NOTICE

Texas Instruments Incorporated and its subsidiaries (TI) reserve 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 (also referred to herein as "components") 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 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.

TI does not warrant or represent that any license, either express or implied, is granted under 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.

Reproduction of significant portions of TI information in TI data books or data sheets 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.

Resale of TI components or services with statements different from or beyond the parameters stated by TI for that component or service voids all express and any implied warranties for the associated TI component or service and is an unfair and deceptive business practice. TI is not responsible or liable for any such statements.

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 which anticipate dangerous consequences of failures, monitor failures and their consequences, lessen the likelihood of failures that might cause harm 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 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 a special agreement specifically governing such use.

Only those TI components which 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 which have **not** been so designated is solely at the Buyer's risk, and that 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.

### Products

Audio	<a href="http://www.ti.com/audio">www.ti.com/audio</a>
Amplifiers	<a href="http://amplifier.ti.com">amplifier.ti.com</a>
Data Converters	<a href="http://dataconverter.ti.com">dataconverter.ti.com</a>
DLP® Products	<a href="http://www.dlp.com">www.dlp.com</a>
DSP	<a href="http://dsp.ti.com">dsp.ti.com</a>
Clocks and Timers	<a href="http://www.ti.com/clocks">www.ti.com/clocks</a>
Interface	<a href="http://interface.ti.com">interface.ti.com</a>
Logic	<a href="http://logic.ti.com">logic.ti.com</a>
Power Mgmt	<a href="http://power.ti.com">power.ti.com</a>
Microcontrollers	<a href="http://microcontroller.ti.com">microcontroller.ti.com</a>
RFID	<a href="http://www.ti-rfid.com">www.ti-rfid.com</a>
OMAP Applications Processors	<a href="http://www.ti.com/omap">www.ti.com/omap</a>
Wireless Connectivity	<a href="http://www.ti.com/wirelessconnectivity">www.ti.com/wirelessconnectivity</a>

### Applications

Automotive and Transportation	<a href="http://www.ti.com/automotive">www.ti.com/automotive</a>
Communications and Telecom	<a href="http://www.ti.com/communications">www.ti.com/communications</a>
Computers and Peripherals	<a href="http://www.ti.com/computers">www.ti.com/computers</a>
Consumer Electronics	<a href="http://www.ti.com/consumer-apps">www.ti.com/consumer-apps</a>
Energy and Lighting	<a href="http://www.ti.com/energy">www.ti.com/energy</a>
Industrial	<a href="http://www.ti.com/industrial">www.ti.com/industrial</a>
Medical	<a href="http://www.ti.com/medical">www.ti.com/medical</a>
Security	<a href="http://www.ti.com/security">www.ti.com/security</a>
Space, Avionics and Defense	<a href="http://www.ti.com/space-avionics-defense">www.ti.com/space-avionics-defense</a>
Video and Imaging	<a href="http://www.ti.com/video">www.ti.com/video</a>

### TI E2E Community

[e2e.ti.com](http://e2e.ti.com)