

Assembly Bill of Materials

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Project Name:	TPS63802 Tec_Driver
Project File:	TIDA-050017_TPS63802_Tec_Driver_E3.PrjPCB
Base ID:	TIDA-050017
Schematic Rev:	E3
Assembly Variant:	None
Build Quantity:	100
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Item	Designator	Description	RoHS	Manufacturer	PartNumber	Quantity	Required	Supplier 1	Supplier Part Number 1	Supplier 2	Supplier Part Number 2	Alternate Manufacturer	Alternate PartNumber
1	IPC8	Printed Circuit Board	O	Any	TIDA-050017	1	100						
2	C1, C8, C11	CAP, CERM, 10 uF, 6.3 V, +/- 20%, X5R, 0603	Y	MuRata	GRM188R60J106ME84	3	300	Digi-Key	490-7316-1-ND				
3	C2, C4, C6, C7	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X5R, 0603	Y	MuRata	GRM188R60J226MEAD	4	400	Digi-Key	490-7611-1-ND	Newark	55Y9854		
4	C3	CAP, CERM, 22 uF, 25 V, +/- 20%, X5R, 1206, 190	Y	Taiyo Yuden	TMK316BBJ226ML-T	1	100	Digi-Key	587-3246-1-ND	Newark	29X1397		
5	C5	CAP, TA, 68 uF, 20 V, +/- 10%, 0.15 ohm, SMD	Y	Kemet	T495D86K020ATE150	1	100	Digi-Key	395-3890-1-ND	Newark	40K1101		
6	C9, C12	CAP, CERM, 0.1 uF, 50 V, +/- 20%, X5R, 0402	Y	MuRata	GRM155R61H104ME14D	2	200	Digi-Key	GRM155R61H104ME14D-ND	Mouser	81-GRM155R61H104ME4D		
7	C10	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0402	Y	MuRata	GRM155R71H102KA01D	1	100	Digi-Key	490-1303-1-ND	Newark	14T3283		
8	D1	Diode, Zener, 4.44 V, 500 mW, SOD-323F	Y	Diodes Inc.	DD24V3CSF-7	1	100	Digi-Key	DD24V3CSF-7DICT-ND	Mouser	621-DD24V3CSF-7		
9	D2	LED, Blue, SMD	Y	Vishay-Semiconductor	VLMB1500-GS08	1	100	Digi-Key	VLMB1500-GS08CT-ND	Newark	12X9113		
10	FID1, FID2, FID3	Fiducial mark. There is nothing to buy or mount.	Y	N/A	N/A	3	300						
11	J1, J2, J10	Header, 100mil, 6x1, Gold, TH	Y	Samtec	TSW-106-07-G-S	3	300	Digi-Key	SAM1029-06-ND				
12	J3	Header, 100mil, 2x1, Gold, TH	Y	Samtec	TSW-102-07-G-S	1	100	Digi-Key	SAM1029-02-ND				
13	J4, J5, J6, J7, J8, J11	Header, 100mil, 3x1, Gold, TH	Y	Samtec	TSW-103-07-G-S	6	600	Digi-Key	SAM1029-03-ND				
14	J9	Header, 100mil, 4x1, Gold, TH	Y	Samtec	TSW-104-07-G-S	1	100	Digi-Key	SAM1029-04-ND				
15	JP1, JP2, JP3, JP4, JP5, JP6, JP7	Jumper, SMT	Y	Any	JMP-36-30X40SMT	7	700						
16	L1	Inductor, Shielded, Composite, 470 nH, 3.5 A, 0.0076 ohm, SMD	Y	Coilcraft	XFL4015-471MEC	1	100	Mouser	994-XFL4015-471MEC				
17	Q1	Transistor, PNP, 20 V, 0.2 A, SC-89	Y	Rohm	2SAR522EBTL	1	100	Digi-Key	2SAR522EBTLCT-ND	Mouser	755-2SAR522EBTL		
18	Q2	MOSFET, P-CH, -20 V, -12 A, PowerPAK SC-70	Y	Vishay-Siliconix	5IA445EDJT-T1-GE3	1	100	Mouser	78-5IA445EDJT-T1-GE3			None	
19	R1, R6, R8	RES, 511 k, 1%, 0.1 W, 0603	Y	Yageo	RC0603FR-07511KL	3	300	Digi-Key	311-511KHRCT-ND	Mouser	603-RC0603FR-07511KL		
20	R2, R7	RES, 56.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	E	Vishay-Dale	CRCW060356K2FKEA	2	200	Digi-Key	541-56.2KHCT-ND	Newark	52K8614		
21	R3	RES, 80.6 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	E	Vishay-Dale	CRCW060380K6FKEA	1	100	Digi-Key	541-80.6KHCT-ND	Newark	52K8732		
22	R4	RES, 10.0 k, 1%, 0.1 W, 0603	Y	Yageo	RC0603FR-0710KL	1	100	Digi-Key	311-10.0KHRCT-ND	Mouser	603-RC0603FR-0710KL		
23	R5	RES, 100 k, 1%, 0.1 W, 0603	Y	Yageo	RC0603FR-07100KL	1	100	Digi-Key	311-100KHRCT-ND	Mouser	603-RC0603FR-07100KL		
24	R9	RES, 91.0 k, 1%, 0.1 W, 0603	Y	Yageo	RC0603FR-0791KL	1	100	Digi-Key	311-91.0KHRCT-ND	Mouser	603-RC0603FR-0791KL		
25	R10	RES, 10.0 k, 0.1%, 0.1 W, 0603	Y	Yageo America	RT0603BRD0710KL	1	100						
26	R11	RES, 8.06 k, 1%, 0.1 W, 0603	Y	Yageo	RC0603FR-078K06L	1	100	Digi-Key	311-8.06KHRCT-ND	Mouser	603-RC0603FR-078K06L		
27	R12	RES, 200 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	E	Vishay-Dale	CRCW0603200KFKEA	1	100	Digi-Key	541-200KHCT-ND	Newark	52K8272		
28	R13	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	E	Vishay-Dale	CRCW06031K00FKEA	1	100	Digi-Key	541-1.00KHCT-ND	Newark	52K8015		
29	R14	RES, 820, 1%, 0.1 W, 0603	Y	Yageo	RC0603FR-07820RL	1	100	Digi-Key	311-820HRCT-ND	Mouser	603-RC0603FR-07820RL		
30	R15	RES, 47.0 k, 1%, 0.0625 W, 0402	Y	Yageo America	RC0402FR-0747KL	1	100	Digi-Key	311-47.0KLCT-ND	Newark	67R9937		
31	S1	Switch, Tactile, SPST-NO, 0.05A, 12V, SMD	Y	Wurth Elektronik	430182080816	1	100	Digi-Key	732-7007-1-ND				
32	U1	High Current, High Efficiency Single Inductor Buck-Boost Converter, DLA0010A (VSON-HR-10)	Y	Texas Instruments	TPS63802DLAR	1	100					Texas Instruments	TPS63802DLAT
33	U2	MSP430FR2433 16 MHz Ultra-Low-Power Microcontroller with 16 KB FRAM, 4 KB RAM, 19 IO, 4 Timers, YQW0024PAT (DSBGA-24)	Y	Texas Instruments	MSP430FR2433YQWR	1	100					Texas Instruments	MSP430FR2433YQWT
34	U3	Adjustable Precision Micropower Shunt Voltage Reference, 1.0% accuracy, 15 ppm / degC, 12 mA, -40 to 85 degC, 5-pin SC70 (DCK), Green (RoHS & no Sb/Br)	Y	Texas Instruments	LM4041DIDCKR	1	100						

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