

Bill of Materials

TI DESIGNS

TIDA-00320 Low Side Driver Beagle Bone Cape

Item	Qty	Reference	Value	Description	Manufacturer	Manufacturer Part Number	PCB Footprint	Note
1	1	IPC81		Printed Circuit Board	Any	TIDA-00320		
2	10	C20, C40, C41, C42, C44, C45, C46, C49, C60, C61	0.1uF	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	Kemet	C0603C104K5RACTU	0603	
3	1	C43	1000pF	CAP, CERM, 1000pF, 2KV 10% X7R 1206	Johanson Dielectrics Inc	202R18W102KV4E	1206	
4	1	C47	1uF	CAP, CERM, 1uF, 50V, +/-10%, X7R, 1206	TDK	C3216X7R1H105K	1206	
5	2	C48, C94	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	Kemet	C0603C104K5RACTU	0603	
6	1	C50	0.022uF	CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0603	Kemet	C0603C223K5RACTU	0603	
7	1	C51	4.7uF	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X7S, 0603	TDK	C1608X7S1A475K080A	0603	
8	2	C62, C63	0.1uF	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805	Samsung	CL21B104KCF5FNE	0805	
9	8	C80, C81, C82, C83, C84, C85, C86, C87	0.01uF	CAP, CERM, 0.01 µF, 100 V, +/- 20%, X7R, 0603	TDK	C1608X7R2A103M	0603	
10	5	C88, C89, C90, C91, C92	4700pF	CAP, CERM, 4700 pF, 100 V, +/- 10%, X8R, 0603	TDK	C1608X8R2A472K	0603	
11	1	C93	1uF	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0805	Samsung	CL21B105KBFNNNE	0805	
12	3	D20, D40, D42	Green	LED, Green, SMD	Lite-On	LTST-C190KGKT	1.6x0.8x0.8mm	
13	1	D41	MMBD120	Diode, Small Signal, 100V, 200 mA	Fairchild	MMBD1204	SOT416	
14	2	D60, D61	48V	Diode, TVS, Uni, 48V, 600W, SMB	Diodes Inc.	SMBJ48A-13-F	SMB	
15	8	D80, D81, D82, D83, D84, D85, D86, D87	90V	Diode, Switching, 90V, 0.1A, 0603 Diode	Bourns	CD0603-S0180	0603 Diode	
16	8	D88, D89, D90, D91, D92, D93, D94, D95	Blue	LED, Blue, SMD	OSRAM	LB Q39G-L2N2-35-1	BLUE 0603 LED	
17	1	D96	33V	Diode, TVS, Bi, 33V, 400W, SMA	Littelfuse	SMAJ33CA	SMA	
18	1	D97	300V	Diode, Standard Recovery Rectifier, 300V, 1A, SMA	ON Semiconductor	MRA4003T3G	SMA	
19	2	FID4, FID5		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	Fiducial	
20	2	J20, J21		Female Connector, 2.54mm, 23x2, TH	Major League Electronics	SSHQ-123-D-08-F-LF	Female Connector, 2.54mm, 23x2, TH	
21	2	J80, J81		Header (Shrouded), 3.5 mm, 7x1, R/A, TH	Phoenix Contact	1844265	TH, 7-Leads, Body 9.2x25.9, Pitch 3.5mm	
22	3	L40, L60, L61	600 ohm	Ferrite Bead, 600 ohm @ 100 MHz, 1.3 A, 0603	MuRata	BLM18KG601SN1D	0603	
23	1	L41	68uH	Inductor, Wirewound, Ferrite, 68uH, 0.35A, 0.852 ohm, SMD	Bourns	SRN4026-680M	SMD, 2-Leads, Body 4.2x4.2mm	
24	1	LBL1		Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	Brady	THT-14-423-10	PCB Label 0.650"H x 0.200"W	
25	5	R20, R21, R22, R23, R24	5.62k	RES, 5.62 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06035K62FKEA	0603	
26	1	R25	453	RES, 453, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603453RFKEA	0603	
27	1	R40	7.50k	RES, 7.50 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06037K50FKEA	0603	
28	1	R41	86.6k	RES, 86.6k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060386K6FKEA	0603	
29	1	R42	66.5k	RES, 66.5k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060366K5FKEA	0603	
30	4	R43, R44, R60, R61	2.00k	RES, 2.00 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06032K00FKEA	0603	
31	1	R45	1.00	RES, 1.00, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06031R00FKEA	0603	
32	1	R46	1.21k	RES, 1.21 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06031K21FKEA	0603	
33	8	R80, R81, R82, R83, R84, R85, R86, R87	10.0k	RES, 10.0k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060310K0FKEA	0603	
34	1	RF80	47	RES, 47 ohm, 10%, 2W, Fusible, TH	TT Electronics/IRC	EMC2-47RKI	Axial resistor	
35	1	S20		DIP Switch, SPST, 2Pos, Slide, SMT	Copal Electronics	CVS-02TB	SW, 4.7x1.45x3mm	
36	1	U20		I2C-Compatible (2-wire) Serial EEPROM 2-Kbit (256 x 8), SOIC-8	Atmel	AT24C02D-SSHM-T	SOIC-8	
37	2	U40, U41		4242-VPK Small-Footprint and Low-Power Quad Channels Digital Isolators, DBQ0016A	Texas Instruments	ISO7140CCDBQ	DBQ0016A	
38	1	U42		4242-V PK Small-Footprint and Low-Power Quad Channel Digital Isolator, DBQ0016A	Texas Instruments	ISO7142CCDBQ	DBQ0016A	
39	1	U43		SolarMagic 100V, 150 mA Constant On-Time Buck Switching Regulator, DGK0008A	Texas Instruments	SM72485MM/NOPB	DGK0008A	
40	2	U60, U61		Quad Low-Side Driver IC, PWP0016D	Texas Instruments	DRV8803PWPR	PWP0016D	
41	0	FID1, FID2, FID3		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	Fiducial	

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