

**TIDA-01606\_Gate Driver REV E4 Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB1	1		TIDA-01606_Gate Driver	Any	Printed Circuit Board	
2	C1, C4, C5, C10, C13, C15, C16, C19, C20	9	0.1uF	C0603X104K3RACTU	Kemet	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603
3	C2, C3, C11, C12, C17, C18	6	4.7uF	GRT21BR61H475KE13L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X5R, AEC-Q200 Grade 3, 0805	0805
4	C6, C14	2	3.3uF	TPSD335K050R0800	AVX	CAP, TA, 3.3 uF, 50 V, +/- 10%, 0.8 ohm, SMD	7343-31
5	C7	1	10uF	CL31A106KBHNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 50 V, +/- 10%, X5R, 1206_190	1206_190
6	C8	1	0.33uF	C1608X7R1H334K080AC	TDK	CAP, CERM, 0.33 uF, 50 V, +/- 10%, X7R, 0603	0603
7	C9	1	0.1uF	EMVA630ADAR10MD55G	Chemi-Con	CAP, AL, 0.1 uF, 63 V, +/- 20%, SMD	D55
8	C21, C22, C24, C26, C28, C32, C35, C36, C38, C40, C42	11	0.1uF	885012206095	Würth Elektronik	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
9	C23, C27, C30, C33, C37, C39, C41, C43	8	10uF	GRM21BR6YA106KE43L	MuRata	CAP, CERM, 10 uF, 35 V, +/- 10%, X5R, 0805	0805
10	C25, C31	2	100pF	885012007057	Würth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0805	0805
11	C29, C34	2	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
12	C44, C45, C46, C47	4	100pF	06035A101FAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 1%, C0G/NP0, 0603	0603
13	D1, D4, D6, D14, D15, D16	6	80V	MBR0580-TP	Micro Commercial Components	Diode, Schottky, 80 V, 0.5 A, SOD-123	SOD-123
14	D2	1	60V	B160-13-F	Diodes Inc.	Diode, Schottky, 60 V, 1 A, SMA	SMA
15	D3, D5	2	15V	LSM115JE3/TR13	Microsemi	Diode, Schottky, 15 V, 1 A, DO-214BA	DO-214BA
16	D7, D9	2	1000V	RS1MB-13-F	Diodes Inc.	Diode, P-N, 1000 V, 1 A, SMB	SMB
17	D8, D10	2	12V	MMSZ4699T1G	ON Semiconductor	Diode, Zener, 12 V, 500 mW, SOD-123	SOD-123
18	D11	1	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
19	D12, D13	2	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603
20	D17, D18	2	3V	MMSZ4683T1G	ON Semiconductor	Diode, Zener, 3 V, 500 mW, SOD-123	SOD-123
21	FLT, PWM1, PWM2, PWM3, PWM4, RDY, RST	7		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
22	J1	1		61301621021	Würth Elektronik	Header, 2.54mm, 8x2, Gold, R/A, TH	Header, 2.54mm, 8x2, R/A, TH
23	J2, J3, J5, J6	4		61300411021	Würth Elektronik	Header, 2.54 mm, 4x1, Gold, R/A, TH	Header, 2.54 mm, 4x1, R/A, TH
24	LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
25	Q1	1	60V	CSD88537ND	Texas Instruments	MOSFET, 2-CH, N-CH, 60 V, 15 A, D0008A (SOIC-8)	D0008A
26	Q2	1	65 V	BC856A-7-F	Diodes Inc.	Transistor, PNP, 65 V, 0.01 A, SOT-23	SOT-23
27	R1, R7, R14	3	4.7k	ERJ-6GEYJ472V	Panasonic	RES, 4.7 k, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
28	R2, R3, R12, R13, R15, R16	6	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
29	R4, R8, R9, R23, R31	5	0	ERJ-8GEY0R00V	Panasonic	RES, 0, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
30	R5, R10	2	0	CRCW08050000Z0EHP	Vishay-Dale	RES, 0, 5%, 0.333 W, AEC-Q200 Grade 0, 0805	0805
31	R6, R11	2	17.8	CRCW080517R8FKEA	Vishay-Dale	RES, 17.8, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
32	R17, R18, R26, R33, R34	5	10.0	RC0603FR-0710RL	Yageo	RES, 10.0, 1%, 0.1 W, 0603	0603
33	R19, R27, R35, R37	4	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
34	R20, R28	2	1.0k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
35	R21, R22, R29, R30	4	2.00	CRCW12062R00FKEA	Vishay-Dale	RES, 2.00, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
36	R24, R45, R47	3	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
37	R25, R32, R51, R52, R53, R54	6	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
38	R36, R38, R39, R41	4	3.30	RC1206FR-073R3L	Yageo America	RES, 3.30, 1%, 0.25 W, 1206	1206
39	R40	1	20.0k	ERJ-3KEF2002V	Panasonic	RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
40	R42	1	620	RC0603FR-07620RL	Yageo	RES, 620, 1%, 0.1 W, 0603	0603
41	R43	1	1.3k	ERJ-6GEYJ132V	Panasonic	RES, 1.3 k, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
42	R44	1	120	CRCW0402120RJNED	Vishay-Dale	RES, 120, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
43	T1, T2	2	14uH	750343804	Würth Elektronik	Transformer, 14 uH, SMD	10.16x9.14mm
44	T3	1	14uH	750343805	Würth Elektronik	Transformer, 14 uH, SMD	10.16x9.14mm
45	U1, U3, U4	3			Texas Instruments	Adjustable Precision Zener Shunt Regulator, 3-pin SOT-23, Pb-Free	DBZ0003A
46	U2	1		UCC27211DPRR	Texas Instruments	120V Boot, 4A Peak, High Frequency High-Side Low-Side Driver, DPR0010A (WSON-10)	DPR0010A
47	U5, U7	2		ISO5852SDWR	Texas Instruments	5.7 kVrms Split O/P, Reinforced Isolated IGBT Gate Driver, DW0016B (SOIC-16)	DW0016B
48	U6	1		SN74LVC126APWR	Texas Instruments	Quadruple Bus Buffer Gate with 3-State Outputs, PW0014A (TSSOP-14)	PW0014A
49	U8, U9	2		UCC5320SCD	Texas Instruments	Isolated Gate Drivers with High CMTI and Scalable Drive Strength, D0008B (SOIC-8)	D0008B
50	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
51	R46, R48	0	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
52	R49, R50	0	0	CRCW08050000Z0EHP	Vishay-Dale	RES, 0, 5%, 0.333 W, AEC-Q200 Grade 0, 0805	0805