

Variant: 001  
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 TID #: TIDA-010031



010031 REV 1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB	1		010031	Any	Printed Circuit Board	
2	C1, C3, C8, C13	4	1uF	GRM188R61H105KAALD	MuRata	CAP, CERM, 1 uF, 50 V, +/- 10%, X5R, 0603	0603
3	C2, C6, C12, C15, C19	5	0.1uF	C1608X5R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X5R, 0603	0603
4	C4	1	2.2uF	GRM188R71A225KE15J	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
5	C5	1	100uF	50ZLJ100MT78X11.5	Rubycon	CAP, AL, 100 uF, 50 V, +/- 20%, 0.12 ohm, TH	CAP, 8x11.5mm
6	C7, C17, C18, C20	4	0.47uF	C3216X7R2A474K160AA	TDK	CAP, CERM, 0.47 uF, 100 V, +/- 10%, X7R, 1206	1206
7	C9	1	0.022uF	C0603X223K5RACTU	Kemet	CAP, CERM, 0.022 uF, 50 V, +/- 10%, X7R, 0603	0603
8	C11	1	10uF	GRM188Z71A106MA73D	MuRata	CAP, CERM, 10 uF, 10 V, +/- 20%, X7R, 0603	0603
9	C14	1	1000pF	GRM188R71C102KA01D	MuRata	CAP, CERM, 1000 pF, 16 V, +/- 10%, X7R, 0603	0603
10	C16	1	22pF	06035A220JAT2A	AVX	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
11	D1	1	100V	1N4148W-TP	Micro Commercial Components	Diode, Switching, 100 V, 0.15 A, SOD-123	SOD-123
12	D2, D3	2	Red	LTST-C190CKT	Lite-On	LED, Red, SMD	Red LED, 1.6x0.8x0.8mm
13	J1, J2, J3, J4, J5	5				Socket	
14	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
15	P1	1		800-10-006-10-001000	Mill-Max	Header, 100mil, 6x1, TH	Header, 6x1, 100mil, TH
16	P2	1		800-10-003-10-001000	Mill-Max	Header, 100mil, 3x1, TH	Header, 3x1, 100mil, TH
17	P3, P5	2		PEC02DAAN	Sullins Connector Solutions	Header, 100mil, 2x2, Tin, TH	Header, 2x2, 2.54mm, TH
18	P4	1		800-10-002-10-001000	Mill-Max	Header, 100mil, 2x1, TH	Header, 2x1, 100mil, TH
19	Q2	1	150 V	MMBT5401LT1G	ON Semiconductor	Transistor, PNP, 150 V, 0.5 A, SOT-23	SOT-23
20	Q3, Q4, Q6, Q8, Q9, Q10	6	40V	CSD18514Q5A	Texas Instruments	MOSFET, N-CH, 40 V, 50 A, DQJ0008A (VSONP-8)	DQJ0008A
21	Q5, Q7	2	140 V	MMBT5550LT1G	ON Semiconductor	Transistor, NPN, 140 V, 0.6 A, SOT-23	SOT-23
22	R1	1	47k	RC0603JR-0747KL	Yageo	RES, 47 k, 5%, 0.1 W, 0603	0603
23	R2, R3	2	470	RC0603JR-07470RL	Yageo	RES, 470, 5%, 0.1 W, 0603	0603
24	R7, R34, R39	3	51k	RC0603JR-0751KL	Yageo	RES, 51 k, 5%, 0.1 W, 0603	0603
25	R8, R9, R11, R12, R15, R16	6	82.0k	RC0603FR-0782KL	Yageo	RES, 82.0 k, 1%, 0.1 W, 0603	0603
26	R10, R13, R17	3	15.0k	CRCW060315K0FKEA	Vishay-Dale	RES, 15.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
27	R14, R23, R24	3	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603
28	R18	1	47.0k	CRCW060347K0FKEA	Vishay-Dale	RES, 47.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
29	R19, R20	2	1.30Meg	CRCW06031M30FKEA	Vishay-Dale	RES, 1.30 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
30	R21	1	150k	CRCW0603150K0FKEA	Vishay-Dale	RES, 150 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
31	R22	1	0.001	ERJ-M1WTF1M0U	Panasonic	RES, 0.001, 1%, 1 W, 2512	2512
32	R25	1	75k	CRCW060375K0JNEA	Vishay-Dale	RES, 75 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
33	R26, R27	2	7.50k	CRCW06037K50FKEA	Vishay-Dale	RES, 7.50 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
34	R28	1	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
35	R29, R30	2	1.00k	ERJ-3EKF1001V	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0603	0603
36	R31	1	20.0k	RC0603FR-0720KL	Yageo	RES, 20.0 k, 1%, 0.1 W, 0603	0603
37	R32, R35, R38, R40	4	100k	ERJ-3GEYJ104V	Panasonic	RES, 100 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
38	R36	1	51k	CRCW060351K0JNEA	Vishay-Dale	RES, 51 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
39	R37	1	100	CRCW0603100R0JNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
40	U1	1		DRV8320HRTVR	Texas Instruments	60V Three-Phase Smart Gate Driver, RTV0032E (WQFN-32)	RTV0032E
41	U2	1		MSP430FR2355TPT	Texas Instruments	Mixed-Signal Microcontroller, PT0048A (LQFP-48)	PT0048A
42	U3	1		TPS70933DBVR	Texas Instruments	150-mA, 30-V, Ultra-Low IQ, Wide Input Low-Dropout Regulator with Reverse Current Protection, DBV0005A (SOT-23-5)	DBV0005A

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