



TI Designs

TIDA-00229

BILL OF MATERIALS

Fitted	Description	Designator	PartNumber	Quantity	Manufacturer	PackageReference	Value
Fitted	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	C5, C9, C30	C0603104K5RACTU	3	Kemet	603	0.1uF
Fitted	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	C6, C7	C1608X7R1C105K	2	TDK	603	1uF
Fitted	CAP, CERM, 22uF, 16V, +/-10%, X5R, 1206	C8	GRM31CR61C226KE15L	1	MuRata	1206	22uF
Fitted	CAP, TA, 4.7uF, 35V, +/-10%, 1.9 ohm, SMD	C11	293D475X9035C2TE3	1	Vishay-Sprague	6032-28	4.7uF
Fitted	CAP, CERM, 1uF, 100V, +/-10%, X7R, 1206	C15	GRM31CR72A105KA01L	1	MuRata	1206	1uF
Fitted	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	C17, C24	C0805C104K1RACTU	2	Kemet	805	0.1uF
Fitted	CAP, CERM, 0.01uF, 25V, +/-5%, COG/NPO, 0603	C18	C181020C0G1E103J	1	TDK	603	0.01uF
Fitted	CAP, CERM, 3300pF, 50V, +/-10%, X7R, 0603	C19	C0603332K5RACTU	1	Kemet	603	3300pF
Fitted	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	C20	C1608X5R1E105K080AC	1	TDK	603	1uF
Fitted	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	C21, C34	06033C104JAT2A	2	AVX	603	0.1uF
Fitted	CAP, AL, 100uF, 100V, +/-20%, 0.12 ohm, TH	C28	100YXJ100M10X20	1	Rubycon	10x20mm	100uF
Fitted	LED SmartLED Green 570NM	D3	LG L29K-G2J1-24-Z	1	OSRAM	603	Green
Fitted	Diode, Zener, 39V, 1W, D041	D8	1N4754A-TP	1	Micro Commercial Co	DO-41	1N4754A-TP
Fitted	Diode, Zener, 16V, 1W, D041	D9	1N4745A-TP	1	Micro Commercial Co	DO-41	1N4745A-TP
Fitted	DIODE, GEN PURPOSE, 400V, 1A, DO-41, TH	D10, D15	1N4004	2	FAIRCHILD SEMICONDUCTOR	DO-41	400V
Fitted	Diode, Schottky, 30V, 0.2A, SOT-23	D11	BAT54C-7-F	1	Diodes Inc.	SOT-23	30V
Fitted	Diode, Switching, 200V, 0.2A, SOT-23	D12, D16	BAS21-7-F	2	Diodes Inc.	SOT-23	200V
Fitted	Diode, P-N, 1100V, 1A, TH	D14	SB1100F5CT-ND	1	Fairchild Semiconductor	DO-41	
Fitted	FERRITE CHIP 1000 OHM 300MA 0603	FBI	MMZ1608B102C	1	TDK Corporation	603	1000 OHM
Fitted	HEATSINK TO-220 W/PINS 1.5TALL	H51	513102802500G	1	Aavid Thermalloy	1.500x1.375in.	513102802500G
Fitted	Header, Male 2x10-pin, 100mil spacing	J3, J6	PEC100AAN	2	Sullins	0.100 inch x 10 x 2	PEC100AAN
Fitted	Terminal Block, 3-pin, 15-A, 5.1mm	J19	ED120/30S	1	OST	0.60 x 0.35 inch	ED120/30S
Fitted	Inductor, 220uH, 30A SMD	L2	SR87032-221M	1	Bourns	7x7mm	220uH
Fitted	Inductor, Chip, 3.3uH 770MA 1210 10%	L3	BB2422H1332K	1	EPCCOS Inc	1210	3.3uH
Fitted	MOSFET, N-CH, 60V, 50A, TO-220AB	Q3	CS18537NKC5	1	Texas Instruments	TO-220AB	60V
Fitted	RES, 300 ohm, 5%, 0.1W, 0603	R4	CRW0603300R0JNEA	1	Vishay-Dale	603	300
Fitted	RES, 63.4k ohm, 1%, 0.1W, 0603	R12	CRW060363K4FKEA	1	Vishay-Dale	603	63.4k
Fitted	RES, 1.00k ohm, 1%, 0.25W, 1206	R13, R26, R39, R46, R47	CRW12061K00FKEA	5	Vishay-Dale	1206	1.00k
Fitted	RES, 121k ohm, 0.1%, 0.125W, 0805	R14	RT8085BRD07121KL	1	Yageo America	805	121k
Fitted	RES, 20k ohm, 5%, 0.25W, 1206	R15, R42	CRW120620K0JNEA	2	Vishay-Dale	1206	20k
Fitted	RES, 10.0k ohm, 1%, 0.1W, 0603	R16, R27	CRW060310K0FKEA	2	Vishay-Dale	603	10.0k
Fitted	RES, 1.00k ohm, 1%, 0.1W, 0603	R17	RC0603FR-071KL	1	Yageo America	603	1.00k
Fitted	RES, 9.76k ohm, 1%, 0.1W, 0603	R18	CRW06039K76FKEA	1	Vishay-Dale	603	9.76k
Fitted	RES, 53.6k ohm, 0.1%, 0.125W, 0805	R19	RG2012P-5362-B-T5	1	Susumu Co Ltd	805	53.6k
Fitted	RES, 10.0k ohm, 1%, 0.25W, 1206	R25, R28, R37	CRW120610K0FKEA	3	Vishay-Dale	1206	10.0k
Fitted	RES, 1.00Meg ohm, 1%, 0.1W, 0603	R40, R73	CRW06031M00FKEA	2	Vishay-Dale	603	1.00Meg
Fitted	RES, 10k ohm, 0.01%, 0.063W, 0603	R41, R70, R71, R72	RNCF0603TKY10K0	4	Stackpole Electronics Inc	603	10k
Fitted	RES, 510 ohm, 0.1%, 0.1W, 0603	R48	RG1608P-511-B-T5	1	Susumu Co Ltd	603	510
Fitted	RES, 0 ohm, 5%, 0.1W, 0603	R75, R78	CRW06030000Z0EA	2	Vishay-Dale	603	0
Fitted	RES, 47k ohm, 5%, 0.125W, 0805	R82	ERJ-6EY4J73V	1	Panasonic	805	47k
Fitted	Test Point, 0.040 Hole	TP16, TP18, TP22, TP31	STD	4	STD	STD	TPD
Fitted	IC, 300-mA 40-V LOW-DROPOUT REGULATOR WITH 25-uA QUIESCENT CURRENT	U1	TPS7A6533QKVRQ1	1	TI	PFM	TPS7A6533QKVRQ1
Fitted	100V, 600mA Constant On-Time Synchronous Buck Regulator, DDA0008B	U3	LM5017MRE/NOPB	1	Texas Instruments	DDA0008B	
Fitted	IC, Dual Differential Comparators, 2-36 Vin	U5	LM293AD	1	TI	SO-8	LM293AD
Not Fitted	Printed Circuit Board	IPC81	TIDA-00229	0	Any		
Not Fitted	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	C1, C10, C12, C16, C23, C25, C27,	06033C104JAT2A	0	AVX	603	0.1uF
Not Fitted	CAP, CERM, 0.01uF, 25V, +/-5%, COG/NPO, 0603	C2, C3, C29, C33, C44	C1608C0G1E103J	0	TDK	603	0.01uF
Not Fitted	CAP, CERM, 1000pF, 1000V, +/-10%, X7R, 1206	C4, C13, C22	CC1206KX7RCBB102	0	Yageo America	1206	1000pF
Not Fitted	CAP, TA, 4.7uF, 35V, +/-10%, 0.3 ohm, SMD	C14, C32	T495X476K035ATE300	0	Kemet	7343-43	4.7uF
Not Fitted	CAP, CERM, 22uF, 16V, +/-20%, X5R, 1206	C26	1206V222MAT2A	0	AVX	1206	22uF
Not Fitted	CAP, CERM, 100pF, 25V, +/-10%, X7R, 0603	C36, C37, C38, C39, C40, C41, C42,	06033C101KAT2A	0	AVX	603	100pF
Not Fitted	LED SmartLED Green 570NM	D1	LG L29K-G2J1-24-Z	0	OSRAM	603	Green
Not Fitted	Diode, TVS 15V 1500W BIDIR 5% SMC	D2, D4, D6	SMC15CA	0	Littelfuse Inc	SMC	15V
Not Fitted	Diode, Zener, 5.1V, 5W, SMB	D5	SMBJ5338B-TP	0	Micro Commercial Components	SMB	5.1V
Not Fitted	Diode, Schottky, 20V, 1A, SMA	D7	B120-13-F	0	Diodes Inc.	SMA	20V
Not Fitted	LED, 5MM, RED, TH	D13	TLHR6405	0	VISHAY	-	RED
Not Fitted	Fiducial mark. There is nothing to buy or mount.	FID1, FID2, FID3, FID4, FID5, FID6	N/A	0	N/A	Fiducial	
Not Fitted	Machine Screw, Round, #4-40 x 1/4, Nylon, Phillips panhead	H1, H2, H4, H5	NY NMS 440 0025 PH	0	B&F Fastener Supply	Screw	
Not Fitted	Mountin hole, NPTH Drill 3.2mm	H3		0			
Not Fitted	Standoff, Hex, 0.5L #4-40 Nylon"	H6, H7, H8, H9	1902C	0	Keystone	Standoff	
Not Fitted	Header, 100mil, 5x2, Tin plated, TH	J1, J2, J7	PEC05DAAN	0	Sullins Connector Solutions	Header, 5x2, 100mil, Tin	
Not Fitted	TERMINAL BLOCK 5.08MM VERT 2POS, TH	J4, J5, J10	ED120/2DS	0	On-Shore Technology	TERM_BLK, 2pos, 5.08mm	
Not Fitted	Header, Male 2-pin, 100mil spacing	J8, J9	PEC02SAAN	0	Sullins	0.100 inch x 2	PEC02SAAN
Not Fitted	Terminal Block, 4x1, 2.54mm, TH	J11, J12, J13, J14, J15, J16, J17, J18	OSTVN02A150	0	On Shore Technology Inc	TERM_BLK, 2pos, 2.54mm	
Not Fitted	Inductor, Common Mode Filter SMD	L1	AMC2012-900-2P-T002	0	TDK	2.00mm x 1.20mm	xx uH
Not Fitted	Thermal Transfer Printable Labels, 0.650 W x 0.200" H - 10	000 per roll"	LBL1	0	THT-14-42	-	PCB Label 0.650H x 0.200"W"
Not Fitted	MOSFET, N-CH, 30V, 22A, SON 2X2 MM	Q1, Q2	CSO17571Q2	0	TEXAS INSTRUMENTS	DQK	30V
Not Fitted	RES, 300 ohm, 5%, 0.1W, 0603	R1, R24	CRW0603300R0JNEA	0	Vishay-Dale	603	300
Not Fitted	RES, 2.2k ohm, 5%, 0.1W, 0603	R2, R58	CRW06032K20JNEA	0	Vishay-Dale	603	2.2k
Not Fitted	RES, 470 ohm, 1%, 0.125W, 0805	R3, R10	CRW0805470RFKEA	0	Vishay-Dale	805	470
Not Fitted	RES, 10k ohm, 5%, 0.1W, 0603	R5, R6, R8	CRW060310K0JNEA	0	Vishay-Dale	603	10k
Not Fitted	RES, 120 ohm, 5%, 0.125W, 0805	R7	CRW0805120R0JNEA	0	Vishay-Dale	805	120
Not Fitted	RES, 10.0 ohm, 1%, 0.1W, 0603	R9	CRW060310R0FKEA	0	Vishay-Dale	603	10
Not Fitted	RES, 200 ohm, 1%, 0.1W, 0603	R11	CRW0603200RFKEA	0	Vishay-Dale	603	200
Not Fitted	RES, 100k ohm, 1%, 0.1W, 0603	R20, R30	CRW0603100KFKEA	0	Vishay-Dale	603	100k
Not Fitted	RES, 21.5k ohm, 1%, 0.1W, 0603	R21	CRW060321K5FKEA	0	Vishay-Dale	603	21.5k
Not Fitted	RES, 30k ohm, 5%, 0.1W, 0603	R22, R90	CRW060330K0JNEA	0	Vishay-Dale	603	30k
Not Fitted	RES, 280k ohm, 1%, 0.1W, 0603	R23	CRW0603280KFKEA	0	Vishay-Dale	603	280k
Not Fitted	RES, 43.2k ohm, 1%, 0.1W, 0603	R29	CRW060343K2FKEA	0	Vishay-Dale	603	43.2k
Not Fitted	RES, 10k ohm, 0.01%, 0.063W, 0603	R31, R32, R35, R38, R43, R44, R74,	RNCF0603TKY10K0	0	Stackpole Electronics Inc	603	10k
Not Fitted	RES, 100 ohm, 1%, 0.1W, 0603	R33, R45, R67, R68, R69, R86	CRW0603100RFKEA	0	Vishay-Dale	603	100
Not Fitted	RES, 10.0k ohm, 1%, 0.1W, 0603	R34, R79	CRW060310K0FKEA	0	Vishay-Dale	603	10.0k
Not Fitted	RES, 68k ohm, 5%, 0.1W, 0603	R36	CRW060368K0JNEA	0	Vishay-Dale	603	68k
Not Fitted	RES, 18.0k ohm, 1%, 0.1W, 0603	R49	RC0603FR-0718KL	0	Yageo America	603	18.0k
Not Fitted	RES, 22 ohm, 5%, 0.25W, 1206	R50, R51, R52, R53, R54, R55, R56,	CRW120622R0JNEA	0	Vishay-Dale	1206	22
Not Fitted	RES, 10.0k ohm, 1%, 0.25W, 1206	R76, R84	CRW120610K0FKEA	0	Vishay-Dale	1206	2.8k
Not Fitted	RES, 1.00Meg ohm, 1%, 0.1W, 0603	R77	CRW06031M00FKEA	0	Vishay-Dale	603	1.00Meg
Not Fitted	RES, 0 ohm, 5%, 0.1W, 0603	R80, R81	CRW06030000Z0EA	0	Vishay-Dale	603	0
Not Fitted	RESISTOR, THIN FILM, 332k OHM, 0.1%, 0.25W, SMT1206	R83, R88, R92, R93, R94	ERA-8AE83323V	0	PANASONIC	1206	332k
Not Fitted	RES, 470 ohm, 5%, 0.1W, 0603	R87	CRW0603470R0JNEA	0	Vishay-Dale	603	470
Not Fitted	Transformer 475uH SMD	T1	760390015	0	Würth Electronics Midcom	10.05mm L x 6.73mm W	475uH
Not Fitted	Test Point, 0.040 Hole	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP7,	STD	0	STD	STD	
Not Fitted	IC, ISOLATED RS-485 PROFIBUS TRANSCEIVER	U2	ISO1176DW	0	TI	SO-16	ISO1176DW
Not Fitted	IC, DC-DC Converter	U4	TPSS5010RTE	0	TI	QFN-16	TPSS5010RTE
Not Fitted	IC, 1 of 8- FET Multi/Demultiplexer	U6	SN74CB3Q3251PW	0	TI	TSSOP-16	SN74CB3Q3251PW
Not Fitted	IC, Dual Differential Comparators, 2-36 Vin	U7	LM293AD	0	TI	SO-8	LM293AD
Not Fitted	LOW-VOLTAGE RAIL-TO-RAIL OUTPUT OPERATIONAL AMPLIFIERS, PW0014A	U8	OPA4314AIPW	0	Texas Instruments	PW0014A	
Not Fitted	IC, Micropower Shunt Voltage Reference 100 ppm/°C, 45µA-12mA, Adjustable	U9	LM4041BIDBZ	0	TI	SOT23	LM4041BIDBZ

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