

Bill of Materials

TI DESIGNS # TIDA-00128

Fitted	Description	Designator	Manufacturer	PartNumber	Quantity	RoHS	PackageReference
Fitted	Printed Circuit Board	PCB1	Any	TIDA-00128	1	O	
Fitted	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	C1, C2, C10, C11, C15, C20, C22, C23, C30, C31, C33, C34, C35, C43	AVX	06033C104JAT2A	14	Y	0603
Fitted	CAP, CERM, 1000pF, 1000V, +/-10%, X7R, 1206	C3, C12, C21	Yageo America	CC1206KKX7RCBB102	3	Y	1206
Fitted	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	C4, C7	TDK	C1608X7R1C105K	2	Y	0603
Fitted	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	C5, C8, C29	Kemet	C0603C104K5RACTU	3	Y	0603
Fitted	CAP, TA, 4.7uF, 35V, +/-10%, 1.9 ohm, SMD	C6	Vishay-Sprague	293D475X9035C2TE3	1	Y	6032-28
Fitted	CAP, CERM, 22uF, 16V, +/-10%, X5R, 1206	C9	MuRata	GRM31CR61C226KE15L	1	Y	1206
Fitted	CAP, TA, 47uF, 35V, +/-10%, 0.3 ohm, SMD	C13, C28	Kemet	T495X476K035ATE300	2	Y	7343-43
Fitted	CAP, CERM, 1uF, 100V, +/-10%, X7R, 1206	C14	MuRata	GRM31CR72A105KA01L	1	Y	1206
Fitted	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	C16, C25	Kemet	C0805C104K1RACTU	2	Y	0805
Fitted	CAP, CERM, 0.01uF, 25V, +/-5%, COG/NP0, 0603	C17, C26, C47, C48, C49, C50	TDK	C1608C0G1E103J	6	Y	0603
Fitted	CAP, CERM, 3300pF, 50V, +/-10%, X7R, 0603	C18	Kemet	C0603C332K5RACTU	1	Y	0603
Fitted	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	C19	TDK	C1608X5R1E105K080AC	1	Y	0603
Fitted	CAP, CERM, 22uF, 16V, +/-20%, X5R, 1206	C24	AVX	1206YD226MAT2A	1	Y	1206
Fitted	CAP, AL, 100uF, 100V, +/-20%, 0.12 ohm, TH	C27	Rubycon	100YXJ100M10X20	1	Y	10x20mm
Fitted	CAP, CERM, 100pF, 25V, +/-10%, X7R, 0603	C32, C36, C37, C38, C39, C40, C41, C42, C44, C45, C46	AVX	06033C101KAT2A	11	Y	0603
Fitted	Diode, TVS 15V 1500W BIDIR 5% SMC	D1, D3, D5	Littelfuse Inc	SMCJ15CA	3	Y	SMC
Fitted	LED SmartLED Green 570NM	D2	OSRAM	LG L29K-G2J1-24-Z	1		0603
Fitted	Diode, Zener, 5.1V, 5W, SMB	D4	Micro Commercial Components	SMBJ5338B-TP	1	Y	SMB
Fitted	Diode, Schottky, 20V, 1A, SMA	D6	Diodes Inc.	B120-13-F	1	Y	SMA
Fitted	Diode, Zener, 39V, 1W, DO41	D7	Micro Commercial Co	1N4754A-TP	1		DO-41
Fitted	Diode, Zener, 16V, 1W, DO41	D8	Micro Commercial Co	1N4745A-TP	1		DO-41
Fitted	Diode, P-N, 1000V, 1A, TH	D9, D11	Fairchild Semiconductor	1N4007	2	Y	DO-41
Fitted	Diode, P-N, 1100V, 1A, TH	D10	Fairchild Semiconductor	SB1100F5CT-ND	1	Y	DO-41
Fitted	Diode, Switching, 200V, 0.2A, SOT-23	D12	Diodes Inc.	BAS21-7-F	1	Y	SOT-23
Fitted	FERRITE CHIP 1000 OHM 300MA 0603	FB1	TDK Corporation	MMZ1608B102C	1	Y	0603
Fitted	Fiducial mark. There is nothing to buy or mount.	FID1, FID2, FID3, FID4, FID5, FID6	N/A	N/A	6		Fiducial
Fitted	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	H1, H2, H4, H5	B&F Fastener Supply	NY PMS 440 0025 PH	4	Y	Screw
Fitted	Mountin hole, NPTH Drill 3.2mm	H3			1		
Fitted	Standoff, Hex, 0.5"L 44-40 Nylon	H6, H7, H8, H9	Keystone	1902C	4	Y	Standoff
Fitted	HEATSINK TO-220 W/PINS 1.5" TALL	HS1	Avaid Thermalloy	513102B02500G	1		1.500x1.375in.
Fitted	Header, Male 2x10-pin, 100mil spacing	J1, J4	Sullins	PEC110DAAN	2		0.100 inch x 10 x 2
Fitted	TERMINAL BLOCK 5.08MM VERT 2POS, TH	J2, J3, J11, J14, J15, J16, J17	On-Shore Technology	ED120/2DS	7	Y	TERM_BLK, 2pos, 5.08mm
Fitted	Header, Male 2-pin, 100mil spacing	J5, J6, J7, J8, J9, J10, J12, J13	Sullins	PEC025AAN	8		0.100 inch x 2
Fitted	Terminal Block, 3-pin, 15-A, 5.1mm	J18	OST	ED120/3DS	1		0.60 x 0.35 inch
Fitted	Inductor, Common Mode Filter SMD	L1	TDK	ACM2012-900-2P-T002	1		2.00mm x 1.20mm
Fitted	Inductor, 220uH .30A SMD	L2	Bourns	SRR7032-221M	1	Y	7x7mm
Fitted	Inductor, Chip, 3.3uH 770MA 1210 10%	L3	EPCOS Inc	B82422H1332K	1		1210
Fitted	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	LBL1	Brady	TH1-14-423-10	1	Y	PCB Label 0.650"H x 0.200"W
Fitted	MOSFET, N-CH, 30V, 22A, SON 2X2 MM	Q1	TEXAS INSTRUMENTS	CSD17571Q2	1	Y	DQK
Fitted	MOSFET, N-CH, 60V, 50A, TO-220AB	Q2	Texas Instruments	CSD18537NKCS	1	Y	TO-220AB
Fitted	RES, 100 ohm, 1%, 0.1W, 0603	R1, R40, R67, R68, R69, R70, R71	Vishay-Dale	CRCW0603100RFKEA	7	Y	0603
Fitted	RES, 470 ohm, 1%, 0.125W, 0805	R2, R9	Vishay-Dale	CRCW0805470RFKEA	2	Y	0805
Fitted	RES, 300 ohm, 5%, 0.1W, 0603	R3, R39	Vishay-Dale	CRCW0603300RJNEA	2	Y	0603
Fitted	RES, 10k ohm, 5%, 0.1W, 0603	R4, R5, R7	Vishay-Dale	CRCW060310K0JNEA	3	Y	0603
Fitted	RES, 120 ohm, 5%, 0.125W, 0805	R6	Vishay-Dale	CRCW0805120RJNEA	1	Y	0805
Fitted	RES, 10.0 ohm, 1%, 0.1W, 0603	R8	Vishay-Dale	CRCW060310R0FKEA	1	Y	0603
Fitted	RES, 200 ohm, 1%, 0.1W, 0603	R10	Vishay-Dale	CRCW0603200RFKEA	1	Y	0603
Fitted	RES, 63.4k ohm, 1%, 0.1W, 0603	R11	Vishay-Dale	CRCW060363K4FKEA	1	Y	0603
Fitted	RES, 121k ohm, 0.1%, 0.125W, 0805	R12	Yageo America	RT0805BRD07121KL	1	Y	0805
Fitted	RES, 10.0k ohm, 1%, 0.1W, 0603	R13, R22	Vishay-Dale	CRCW060310K0FKEA	2	Y	0603
Fitted	RES, 1.00k ohm, 1%, 0.1W, 0603	R14	Yageo America	RC0603FR-071KL	1	Y	0603
Fitted	RES, 9.76k ohm, 1%, 0.1W, 0603	R15	Vishay-Dale	CRCW060397K6FKEA	1	Y	0603
Fitted	RES, 53.6k ohm, 0.1%, 0.125W, 0805	R16	Susumu Co Ltd	RG2012P-5362-B-T5	1	Y	0805
Fitted	RES, 100k ohm, 1%, 0.1W, 0603	R17, R25	Vishay-Dale	CRCW0603100K0FKEA	2	Y	0603
Fitted	RES, 21.5k ohm, 1%, 0.1W, 0603	R18	Vishay-Dale	CRCW060321K5FKEA	1	Y	0603
Fitted	RES, 30k ohm, 5%, 0.1W, 0603	R19, R63	Vishay-Dale	CRCW060330K0JNEA	2	Y	0603
Fitted	RES, 280k ohm, 1%, 0.1W, 0603	R20	Vishay-Dale	CRCW0603280K0FKEA	1	Y	0603
Fitted	RES, 10.0k ohm, 1%, 0.25W, 1206	R21, R23, R29	Vishay-Dale	CRCW120610K0FKEA	3	Y	1206
Fitted	RES, 43.2k ohm, 1%, 0.1W, 0603	R24	Vishay-Dale	CRCW060343K2FKEA	1	Y	0603
Fitted	RES, 68k ohm, 5%, 0.1W, 0603	R26, R27, R28, R59	Vishay-Dale	CRCW060368K0JNEA	4	Y	0603
Fitted	RES, 1.00Meg ohm, 1%, 0.1W, 0603	R30	Vishay-Dale	CRCW06031M00FKEA	1	Y	0603

Fitted	RES, 10k ohm, 0.01%, 0.063W, 0603	R31, R32, R33, R34, R35, R36, R37, R38, R55, R56, R57, R58, R62, R64, R65, R66	Stackpole Electronics Inc	RNCF0603TKY10K0	16	Y	0603
Fitted	RES, 1.00k ohm, 1%, 0.25W, 1206	R41, R42	Vishay-Dale	CRCW12061K00FKEA	2	Y	1206
Fitted	RES, 510 ohm, 0.1%, 0.1W, 0603	R43	Susumu Co Ltd	RG1608P-511-B-T5	1	Y	0603
Fitted	RES, 27k ohm, 5%, 0.1W, 0603	R44, R45, R46	Yageo America	RC0603JR-0727KL	3	Y	0603
Fitted	RES, 22 ohm, 5%, 0.25W, 1206	R47, R48, R49, R50, R51, R52, R53, R54	Vishay-Dale	CRCW120622R0JNEA	8	Y	1206
Fitted	RES, 47k ohm, 5%, 0.125W, 0805	R60	Panasonic	ERJ-6GEYJ473V	1	Y	0805
Fitted	RES, 470 ohm, 5%, 0.1W, 0603	R61	Vishay-Dale	CRCW0603470RJNEA	1	Y	0603
Fitted	Transformer 475uH SMD	T1	Würth Electronics Midcom	760390015	1	Y	10.05mm L x 6.73mm W
Fitted	Test Point, 0.040 Hole	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24, TP25, TP26, TP27, TP28, TP29, TP30, TP31, TP32, TP33, TP34, TP35, TP36, TP37, TP38, TP39, TP40, TP41, TP42, TP43, TP44, TP45, TP46, TP47, TP48	STD	STD	48		
Fitted	2.7V, 15.6mV/°C, Temperature Sensor, 3-pin SOT-23	U1	National Semiconductor	LM62BIM3	1	N	MF03A
Fitted	IC, ISOLATED RS-485 PROFIBUS TRANSCIVER	U2	TI	ISO1176DW	1		SO-16
Fitted	IC, 300-mA 40-V LOW-DROPOUT REGULATOR WITH 25- μ A QUIESCENT CURRENT	U3	TI	TPS7A6533QKVJURQ1	1		PFM
Fitted	100V, 600mA Constant On-Time Synchronous Buck Regulator, DDA0008B	U4	Texas Instruments	LM5017MRE/NOPB	1	Y	DDA0008B
Fitted	IC, DC-DC Converter	U5	TI	TPS55010RTE	1		QFN-16
Fitted	IC, Dual Differential Comparators, 2-36 Vin	U6	TI	LM293AD	1		SO-8
Fitted	LOW-VOLTAGE RAIL-TO-RAIL OUTPUT OPERATIONAL AMPLIFIERS, PW0014A	U7, U8	Texas Instruments	OPA4314AIPW	2	Y	PW0014A
Fitted	IC, Micropower Shunt Voltage Reference 100 ppm/°C, 45 μ A, 12mA, Adjustable	U9	TI	LM4041BIDBZ	1		SOT23
Not Fitted	RES, 0 ohm, 5%, 0.1W, 0603	R72	Vishay-Dale	CRCW0603000Z0EA	0	Y	0603

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