

Bill of Materials

TI DESIGNS

TIDA - 00737

Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number	PCB Footprint	DNLe
1	!PCB1	Printed Circuit Board	Any	TIDA-00737		Fitted
3	C1, C3, C25	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	AVX	06035C104KAT2A	0603	Fitted
3	C2, C11, C46	CAP, CERM, 10uF, 50V, +/-10%, X7R, 1210	MuRata	GRM32ER71H106KA12L	1210	Fitted
8	C4, C7, C15, C17, C19, C22, C23, C24	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	AVX	06033C104JAT2A	0603	Fitted
1	C5	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	Samsung	CL21B104KCFSENE	0805	Fitted
2	C6, C20	CAP, TA, 10uF, 25V, +/-10%, 1.5 ohm, SMD	Vishay-Sprague	293D106X9025C2TE3	6032-28	Fitted
5	C8, C14, C16, C18, C21	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	MuRata	GRM188R71C105KA12D	0603	Fitted
2	C9, C10	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	Kemet	C0603C104K5RACTU	0603	Fitted
1	C12	CAP, CERM, 0.01uF, 50V, +/-5%, X7R, 0603	Kemet	C0603C103J5RACTU	0603	Fitted
1	C13	CAP, CERM, 10uF, 16V, +/-10%, X7R, 1206	MuRata	GRM31CR71C106KAC7L	1206	Fitted
1	C26	CAP, CERM, 22 uF, 16 V, +/- 20%, X5R, 0805	MuRata	GRM21BR61C226ME44	0805	Fitted
8	D1, D2, D5, D6, D9, D10, D13, D14	LED, 5MM, RED, TH	VISHAY	TLHR6405	-	Fitted
8	D3, D4, D7, D8, D11, D12, D15, D16	LED 5MM GREEN 15MCD GAP ON GAP	VISHAY	TLHG6405	-	Fitted
1	D17	Diode, Zener, 28 V, 500 mW, SOD-123	Diodes Inc.	MMSZ5255B-7-F	SOD-123	Fitted
1	D18	LED, FOUR DIGIT SEVEN SEGMENT DISPLAY, SUPER RED, GRAY FACE, WHITE SEGMENTS, COMMON ANODE, TH, 12PIN	LUMEX	LDQ-M286RI	-	Fitted
1	D19	Diode, Zener, 15 V, 500 mW, SOD-123	ON Semiconductor	MMSZ4702T1G	SOD-123	Fitted
2	D20, D21	Diode, Zener, 5.6 V, 500 mW, SOD-123	ON Semiconductor	MMSZ4690T1G	SOD-123	Fitted
1	D22	Diode, TVS, Uni, 48 V, 600 W, SMB	Diodes Inc.	SMBJ48A-13-F	SMB	Fitted
5	J1, J2, J6, J7, J9	TERMINAL BLOCK 5.08MM VERT 2POS, TH	On-Shore Technology	ED120/2DS	TERM_BLK, 2pos, 5.08mm	Fitted
1	J3	Header, 2.54 mm, 5x2, Gold, TH	Würth Elektronik	61301021121	Header, 2.54mm, 5x2, TH	Fitted
1	J5	Header, 8x2, 100mil, TH	FCI	67997-416HLF	Header, 8x2, RA	Fitted
1	J8	Receptacle, 100mil, 4X1 TH	TE Connectivity	282834-4	10.62x10x6.5 mm	Fitted
3	K1, K2, K3	Relay, SPST-NO (1 Form A), 12 A, 12 VDC, TH	Omron Electronic Components	G2RL-1A DC12	28.8x12.5mm	Fitted
4	Q1, Q2, Q3, Q4	Transistor, PNP, 40 V, 0.2 A, SOT-23	Fairchild Semiconductor	MMBT3906	SOT-23	Fitted
2	R1, R29	RES, 100, 1%, 0.1 W, 0603	Yageo America	RC0603FR-07100RL	0603	Fitted

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17	R2, R4, R5, R6, R7, R8, R9, R10, R11, R12, R15, R16, R24, R38, R39, R40, R41	RES, 10 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060310K0JNEA	0603	Fitted
5	R3, R30, R31, R32, R33	RES, 1.80 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-071K8L	0603	Fitted
6	R13, R14, R20, R21, R22, R23	RES, 0, 5%, 0.1 W, 0603	Yageo America	RC0603JR-070RL	0603	Fitted
1	R17	RES, 9.76 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06039K76FKEA	0603	Fitted
1	R18	RES, 100k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW0603100KFKEA	0603	Fitted
1	R19	RES, 2.98 k, 0.1%, 0.1 W, 0603	Yageo America	RT0603BRD072K98L	0603	Fitted
4	R25, R26, R27, R28	RES, 20.0 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060320K0FKEA	0603	Fitted
2	R34, R35	RES, 1.58 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-071K58L	0603	Fitted
2	R36, R37	RES, 10.0k ohm, 1%, 0.1W, 0603	Vishay Dale	CRCW060310K0FKEA	0603	Fitted
2	S1, S2	Switch, Tactile, SPST-NO, 0.1A, 16V, SMT	Bourns	7914G-1-000E	4.93x4.19x6.2 mm	Fitted
1	U1	40V 7-Channel Low Side Driver, PW0016A	Texas Instruments	TPL7407LPW	PW0016A	Fitted
2	U2, U6	ESD Protection in 0402 Package with 10 pF Capacitance and 9 V Breakdown, 1 Channel, -40 to +125 degC, 2-pin X2SON (DPY), Green (RoHS & no Sb/Br)	Texas Instruments	TPD1E10B09DPYR	DPY0002A	Fitted
1	U3	Low-Power 16-Channel Constant-Current LED Sink Driver, 3 to 5.5 V, 40 to 85 degC, 24-pin SOP (DBQ24), Green (RoHS & no Sb/Br)	Texas Instruments	TLC59025IDBQR	DBQ0024A	Fitted
2	U4, U5	8-Bit Constant-Current LED Sink Driver, 3 to 5.5 V, -40 to 125 degC, 16-pin SOIC (D16), Green (RoHS & no Sb/Br)	Texas Instruments	TLC5916ID	D0016A	Fitted
1	U7	Quad Low-Side Driver IC, PWP0016D	Texas Instruments	DRV8803PWPR	PWP0016D	Fitted
1	U8	Robust EMC, Low Power, Quad-Channel Digital Isolators, DW0016B	Texas Instruments	ISO7340CDWR	DW0016B	Fitted
1	U9	Single Output LDO, 50 mA, Adjustable 1.175 to 48 V Output, 7 to 50 V Input, 8-pin MSOP (DGN), -40 to 125 degC, Green (RoHS & no Sb/Br)	Texas Instruments	TPS7A4101DGNR	DGN0008B	Fitted
1	U10	Ambient Light Sensor, DNP0006A	Texas Instruments	OPT3001DNPR	DNP0006A	Fitted

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