

TSI BOM

Ref	Value	Description	Manufacturer	Manufacturer P/N	Supplier	Supplier P/N	Unit Price
U13		DC/DC CONVERTER 5V 10W	CUI Inc.	PDQ10-Q24-S5-D	Digikey	102-3865-ND	\$25.82
U1		CONVERT DC/DC 2W 12V 167MA OUT	CUI Inc.	PDM2-S24-S12-S	Digikey	102-2728-ND	\$5.71
SW1		SWITCH PUSH SPST-NO 0.1A 42V	RAFI USA	1.14100.5030000	Digikey	1715-1676-1-ND	\$2.40
SW2		IC ANLG SW SPDT SOT23-6	Texas Instruments	TSSA3159QDBVRQ1	Digikey	296-39512-1-ND	\$0.98
U4		SENSOR TEMPERATURE SPI SOT23-5	Texas Instruments	LM95071QIMFX/NOPB	Digikey	296-40259-1-ND	\$2.90
U8		IC GATE NAND 1CH 8-INP 14-SOIC	Texas Instruments	74ACT11030DR	Digikey	296-4180-1-ND	\$2.28
R44	120Ω	RES SMD 120 OHM 1% 1/8W 0805	Yageo	RC0805FR-07120RL	Digikey	311-120CRCT-ND	\$0.10
R12	150Ω	RES SMD 150 OHM 1% 1/8W 0805	Yageo	RC0805FR-07150RL	Digikey	311-150CRCT-ND	\$0.10
R15	150Ω	RES SMD 150 OHM 1% 1/8W 0805	Yageo	RC0805FR-07150RL	Digikey	311-150CRCT-ND	\$0.10
R27	150Ω	RES SMD 150 OHM 1% 1/8W 0805	Yageo	RC0805FR-07150RL	Digikey	311-150CRCT-ND	\$0.10
R70	47kΩ	RES SMD 47K OHM 1% 1/8W 0805	Yageo	RC0805FR-0747KL	Digikey	311-47.0KCRCT-ND	\$0.10
C5	10pF	CAP CER 10PF 50V NPO 0805	KEMET	C0805C100J5GACTU	Digikey	399-1108-1-ND	\$0.10
C6	10pF	CAP CER 10PF 50V NPO 0805	KEMET	C0805C100J5GACTU	Digikey	399-1108-1-ND	\$0.10
C28	100pF	CAP CER 100PF 50V NPO 0805	KEMET	C0805C101J5GACTU	Digikey	399-1122-1-ND	\$0.10
C29	100pF	CAP CER 100PF 50V NPO 0805	KEMET	C0805C101J5GACTU	Digikey	399-1122-1-ND	\$0.10
C30	100pF	CAP CER 100PF 50V NPO 0805	KEMET	C0805C101J5GACTU	Digikey	399-1122-1-ND	\$0.10
C41	100pF	CAP CER 100PF 50V NPO 0805	KEMET	C0805C101J5GACTU	Digikey	399-1122-1-ND	\$0.10
C46	100pF	CAP CER 100PF 50V NPO 0805	KEMET	C0805C101J5GACTU	Digikey	399-1122-1-ND	\$0.10
C47	100pF	CAP CER 100PF 50V NPO 0805	KEMET	C0805C101J5GACTU	Digikey	399-1122-1-ND	\$0.10
C1	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C12	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C14	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C15	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C16	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C17	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C18	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C2	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C22	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C23	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C25	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C26	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C31	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C32	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C33	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C34	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C35	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C37	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C38	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C40	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C42	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C43	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C44	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C45	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C7	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
C8	0.1uF	CAP CER 0.1UF 25V X7R 0805	KEMET	C0805C104K3RACTU	Digikey	399-1168-1-ND	\$0.10
SW3		SWITCH SLIDE DPDT 300MA 6V	C&K	JS202011CQN	Digikey	401-2001-ND	\$0.41
D1		LED GREEN DIFFUSED 0805 SMD	OSRAM Opto Semiconductors Inc.	LG R971-KN-1	Digikey	475-1410-1-ND	\$0.25
D2		LED YELLOW DIFFUSED 0805 SMD	OSRAM Opto Semiconductors Inc.	LY R976-PS-36	Digikey	475-2560-1-ND	\$0.35
D3		LED RED DIFFUSED 0805 SMD	OSRAM Opto Semiconductors Inc.	LS R976-NR-1	Digikey	475-1278-1-ND	\$0.26
C10	10uF	CAP CER 10UF 35V X5R 0805	Murata Electronics North America	GRM21BR6YA106ME43L	Digikey	490-10515-1-ND	\$0.36
C11	10uF	CAP CER 10UF 35V X5R 0805	Murata Electronics North America	GRM21BR6YA106ME43L	Digikey	490-10515-1-ND	\$0.36
C19	10uF	CAP CER 10UF 35V X5R 0805	Murata Electronics North America	GRM21BR6YA106ME43L	Digikey	490-10515-1-ND	\$0.36
C24	1uF	CAP CER 1UF 250V X7R 2220	Murata Electronics North America	GRM55DR72E105KW01L	Digikey	490-3550-1-ND	\$0.85
C4	47uF	CAP CER 47UF 16V X5R 1210	Murata Electronics North America	GRM32ER61C476KE15K	Digikey	490-6538-1-ND	\$0.86
U18		IC OPAMP GP 1.4MHZ RRO 8SO	STMicroelectronics	TS912IYDT	Digikey	497-10252-1-ND	\$1.54
U6		IC OPAMP GP 1.4MHZ RRO 8SO	STMicroelectronics	TS912IYDT	Digikey	497-10252-1-ND	\$1.54
U22		IC COMP LP DUAL CMOS VOLT 8 SOIC	STMicroelectronics	TS372IDT	Digikey	497-2271-1-ND	\$0.62
D4		LED BLUE DIFFUSED 0805 SMD	Broadcom Limited	HSMR-C170	Digikey	516-1445-1-ND	\$0.89
U19		IC OPAMP ISOLATION 100KHZ 8SO	Broadcom Limited	ACPL-C870-000E	Digikey	516-2578-5-ND	\$5.39
U20		IC OPAMP ISOLATION 100KHZ 8SO	Broadcom Limited	ACPL-C870-000E	Digikey	516-2578-5-ND	\$5.39
C3	2.2uF	CAP CER 2.2UF 16V X5R 0805	Taiyo Yuden	EMK212BJ225KG-T	Digikey	587-1293-1-ND	\$0.16
L1	100uH	FIXED IND 100UH 1A 377 MOHM SMD	Taiyo Yuden	NR8040T101M	Digikey	587-2004-1-ND	\$0.60
CON1		CONN HEADER 10POS DUAL SHRD SMD	Amphenol FCI	20021521-00010T1LF	Digikey	609-4054-ND	\$1.11
Y1		CRYSTAL 10.0000MHZ 12PF SMD	TSC Corporation	7A-10.000MAAE-T	Digikey	887-1741-1-ND	\$0.66
P1		CONN RCPT 2POS 11.18MM PCB SLDR	TE Connectivity AMP Connectors	556881-2	Digikey	A113980-ND	\$7.13
U7		IC MCU 8BIT 128KB FLASH 64TQFP	Microchip Technology	A190CAN128-16AUR	Digikey	A190CAN128-16AURCT-ND	\$7.66
U5		IC REG LDO 10V 1A T0220-3	Fairchild / ON Semiconductor	LM7810ACT	Digikey	LM7810ACT-ND	\$0.64
U16		IC REG BUCK ADJ 0.25A 16MSOP	Linear Technology	LTC3638EMSE#PBF	Digikey	LTC3638EMSE#PBF-ND	\$7.79
U10		IC TRANSCEIVER CAN HI-SPD 8-SOIC	Microchip Technology	MCP2551-I/SN	Digikey	MCP2551-I/SN-ND	\$1.05
U21		IC OPAMP GP 1MHZ RRO SOT23-5	Microchip Technology	MCP6001T-I/OT	Digikey	MCP6001T-I/OTCT-ND	\$0.25
U2		IC OPAMP GP 1MHZ RRO 8SOIC	Microchip Technology	MCP6002T-I/SN	Digikey	MCP6002T-I/SNCT-ND	\$0.34
U17		IC OPAMP GP RRO 1MHZ 14-SOIC	Microchip Technology	MCP6004T-I/SL	Digikey	MCP6004T-I/SLCT-ND	\$0.45
U3		IC OPAMP GP RRO 1MHZ 14-SOIC	Microchip Technology	MCP6004T-I/SL	Digikey	MCP6004T-I/SLCT-ND	\$0.45

U12	OPTOISOLATOR 3.75KV TRANS 4-SO	Toshiba Semiconductor and Storage	TLP293(GB-TPL,E	Digikey	TLP293(GB-TPLECT-ND	\$0.52
U23	OPTOISOLATOR 3.75KV TRANS 4-SO	Toshiba Semiconductor and Storage	TLP293(GB-TPL,E	Digikey	TLP293(GB-TPLECT-ND	\$0.52
U24	OPTOISOLATOR 3.75KV TRANS 4-SO	Toshiba Semiconductor and Storage	TLP293(GB-TPL,E	Digikey	TLP293(GB-TPLECT-ND	\$0.52
U27	OPTOISOLATOR 3.75KV TRANS 4-SO	Toshiba Semiconductor and Storage	TLP293(GB-TPL,E	Digikey	TLP293(GB-TPLECT-ND	\$0.52
U9	OPTOISOLATOR 3.75KV TRANS 4-SO	Toshiba Semiconductor and Storage	TLP293(GB-TPL,E	Digikey	TLP293(GB-TPLECT-ND	\$0.52
P2	QF50 SRD HDR VT .1AU 20POS	Molex LLC	906631201	Digikey	WM14741-ND	\$2.31
J5	CONN MOD JACK 6P6C VERT UNSHLD	Molex LLC	855135002	Digikey	WM3789CT-ND	\$1.16
J1	CONN HEADER 8POS .100 VERT 30AU	Molex LLC	705430112	Digikey	WM4128-ND	\$1.88
J4	CONN HEADER 4POS .100 VERT GOLD	Molex LLC	705430003	Digikey	WM4802-ND	\$0.94
P3	CONN HEADER 14POS 2.54MM VERT	Molex Connector Corporation	905711141	Digikey	WM8632-ND	\$2.40
JP1	JUMPER PLUG 3POS SING ROW	Omron Electronics Inc-EMC Div	XG8V-0331	Digikey	Z5375-ND	\$0.26
Q1	MOSFET P-CH 250V 0.265A SOT223	Diodes Incorporated	ZVP4525GTA	Digikey	ZVP4525GCT-ND	\$0.68
	MODULAR DIN RAIL-MOUNT TERMINAL BLOCK, DIN 1&3, STANDARD, 5MM WIDTH(GREY)	N/A	N/A	McMaster Carr	7641K921	\$1.19
	JUMPER FOR STANDARD DIN 1&3, 5 MM WIDTH MODULAR DIN RAIL-MOUNT TERMINAL BLOCK	N/A	N/A	McMaster Carr	7641K925	\$8.35
	STRAIGHT 3-PIN PLUG FOR TRAILER LIGHTS AND TRUCK LIGHTS	N/A	N/A	Super Bright LEDS	PL-3S	\$1.49
	PT SERIES CHROME BEZEL WITH HOOD	N/A	N/A	Super Bright LEDS	KC-65	\$2.95
	3/4 IN. NON-METALLIC (nm) TWIN- SCREW CLAMP CONNECTORS (5-PACK)	N/A	N/A	Home Depot	279782	\$4.21
	EVERBILT #8-32 x 3/4 IN. PHILLIPS FLAT- HEAD MACHINE SCREWS (5-PACK)	N/A	N/A	Home Depot	492405	\$1.18
	3/8 IN. HEX BOLT	N/A	N/A	Home Depot	661872	\$0.20
	3/8 IN. HEX NUT	N/A	N/A	Home Depot	655449	\$0.12
	2 SLIDE POTENTIOMETERS 15MM SHAFT NO DET 45MM STRK SNG LIN	Bourns	PTA4553-2015DPB502	Mouser	652-PTA45532015DPB50	\$1.20
	WIREWOUND RESISTORS - THROUGH HOLE 5WATTS 10KOHMS 5%	Vishay/Draloric	AC05000001002JAC00	Mouser	594-AC05W10K00J	\$0.58
	POWER TO THE BOARD CONTACT AMPINNERGY WTB 10-12	TE Connectivity AMP Connectors	556880-2	Mouser	571-5568802	\$0.81
4.7kΩ	RES SMD 4.7K OHM 1% 1/8W 0805	Panasonic Electronic Components	ERJ-6ENF4701V	Digikey	P4.70KCCT-ND	\$0.04
4.87kΩ	RES SMD 4.87K OHM 1% 1/8W 0805	Panasonic Electronic Components	ERJ-6ENF4871V	Digikey	P4.87KCCT-ND	\$0.04
4.99kΩ	RES SMD 4.99K OHM 1% 1/8W 0805	Panasonic Electronic Components	ERJ-6ENF4991V	Digikey	P4.99KCCT-ND	\$0.04
	CONN IDC SKT 14POS W/POL 15 GOLD	TE Connectivity AMP Connectors	1658621-2	Digikey	AKC14H-ND	\$1.44
	CONN HOUSING 4POS .100 W/LATCH	Molex LLC	50579404	Digikey	WM2902-ND	\$0.27
	CONN HOUSING 8POS .100 W/LATCH	Molex LLC	50579408	Digikey	WM2906-ND	\$0.48
	CONN HSG PLUG 2POS 11.18MM BLACK	TE Connectivity AMP Connectors	556879-2	Digikey	556879-2-ND	\$3.89
	FUSE HLD CART 500V 15A IN LINE	Littelfuse INC.	01500322H	Digikey	F4564-ND	\$6.35
	FUSE CERAMIC 500MA 250VAC 125VDC	Littelfuse INC.	0314.500HXP	Digikey	F3212-ND	\$0.90
	OVAL LED STROBE TRUCK AND TRAILER LIGHTS - 6" LED LIGHTS W/ BUILT-IN CONTROLLER - 3-PIN CONNECTOR - RED	N/A	N/A	Super Bright LEDS	PT-STRB-R56	\$24.95
	OVAL LED STROBE TRUCK AND TRAILER LIGHTS - 4" LED SIDE CLEARANCE LIGHTS W/ 4 HIGH FLUX LEDs - PIGTAIL CONNECTOR - RED	N/A	N/A	Super Bright LEDS	M9-R4	\$4.95
	PRESS-FIT NUT FOR SOFT METAL AND PLASTIC (PACK OF 50)	N/A	N/A	McMaster Carr	95117A433	\$12.69
	STEEL PHILLIPS ROUNDED HEAD SCREW (PACK OF 100)	N/A	N/A	McMaster Carr	90272A145	\$1.99
	ELECTRICAL-INSULATING FEMALE THREADED STANDOFF (2")	N/A	N/A	McMaster Carr	94335A147	\$5.76
	ELECTRICAL-INSULATING FEMALE THREADED STANDOFF (1/2")	N/A	N/A	McMaster Carr	94335A125	\$3.56
	6061 ALUMINIUM (1')	N/A	N/A	McMaster Carr	8975K11	\$4.42
	18-8 STAINLESS STEEL HEX DRIVE ROUNDED HEAD SCREW M2 x 0.4 mm THREAD 5 mm LONG	N/A	N/A	McMaster Carr	92095A452	\$6.50
	3" MADE TO ORDER PEEL AND STICK SET MESSAGE AS TSI, COLOR BLACK)	N/A	N/A	McMaster Carr	8216177	\$6.88
	SLIDE POTENTIOMETERS 2K LINEAR	Bourns	PTA4543-2015CPB202	Mouser	652-PTA4432015CPB202	\$1.01
	KNOBS & DIALS SLIDE CNTRL GY/BK	Eagle Plastic Devices	450-SL4514	Mouser	450-SL4514	\$1.14
	PUSHBUTTON SWITCHES OFF-(ON) PUSHBUTTON RED	CW Industries	GPB507A05BR	Mouser	629-GPB507A05BR	\$2.16