Comment	Description	Designator	Footprint	LibRef	Quantity
Button	Push button	B1, B2	FP_BTN_SMD	Button-4P	2
100nF	Capacitor	C1, C2, C4L, C4R, C4U, C5L, C5U, C5R, C6L, C6R, C6U, C6D, C11, C14, C16, C18, C57, C58, C59, C60, C61, C62, C76, C80, C81, C84, C86, C87, C88, C91, C92, C97, C98, C100, C101, C102, C103, C104	FP_0805_CAP_085	CAP	38
2.2nF	Capacitor	C3, C7, C10	FP_0805_CAP_085	CAP	3
22uF	Capacitor	C4, C5, C8, C9, C19, C20	FP_0805_CAP_085	CAP	6
1.2nF	Capacitor	C12, C13, C15	FP_0805_CAP_085	CAP	3
100 uF	Aluminum Electrolytic Capacitor, 63 V, -40 to 85 degC, 2-Pin CAP, RoHS	C14	NIC-UVR-10x12.5-2_V	CMP-1217-00001-1	1
120nF	Capacitor	C17, C18, C43	FP_0805_CAP_085	CAP	3
T491X107K020AT	Tantalum Surface Mount Capacitor, 100 uF, 25 V, -55 to 125 degC, 2-Pin Molded, RoHS, Tape and Reel	C17	KEMT-7343-43_L	CMP-2000-07204-1	1
330 uF	CAP ALUM 47UF 20% 100V THROUGHOLE 5000LXW47MEFR18X25	C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42	FP-L6W18X25-MFG	CMP-35376-00008-1	24
CAP_AC_68uF	Cap Film 68uF 100V PET 10% (19.5 x 22.5 36.5mm) Radial 27.5mm 125C Bulk	C44	Capacitor_AC_68_uF	CAP_AC_68uF	1
100pF	Capacitor	C48, C72	FP_0805_CAP_085	CAP	2
15nF	Capacitor	C49	FP_0805_CAP_085	CAP	1
1uF	Capacitor	C52, C53, C54, C55, C56, C66, C68, C90, C92, C94, C96, C98	FP_0805_CAP_085	CAP	12
10F	Capacitor	C65	FP_0805_CAP_085	CAP	1
68nF	Capacitor	C67	FP_0805_CAP_085	CAP	1
68pF	Capacitor	C70	FP_0805_CAP_085	CAP	1
1.2nF	Capacitor	C75, C77, C79, C81, C83, C85	FP_0805_CAP_085	CAP	6
Connector	2pin connector	CON1	FP_CONN2_TAP_254MM_N	Connector_2pin	1
Bus_STDN-3A		CONN1, CONN2	Bus_STDN-3A24-R20	Bus_STDN-3A	2
MBR0360T4G	SWITCHMODE(TM) Power Rectifier, 3-Pin DPAK, Pb-Free, Tape and Reel	D1, D2, D3, D4, D5	ONSC-DPAK-3-369C-01_V	CMP-1055-00102-1	5
HSMS-C190	Chip LED, Green, 2.2 V, -40 to 85 degC, 2-Pin SMD, RoHS, Tape and Reel	D51, D52, D55, D56, D57	AVAG-HSMX-C190_V	LED_C_CMP-1744-00002-3_L LED_C_CMP-1744-00002-1	5
SEO-HSMS-C190	LED Um-Color Red, 52 mW, 20 mA, -40 to 85 degC, 2-Pin SMD, RoHS, Tape and Reel	D53, D54, D58, D59	AVAG-HSMX-C190_V	SEO-CMP-2000-06427-1	4
Fuse	LITTELFUSE 217.2T05.5101 Automotive Fuse, Fork Lift Truck, 157.5T05 Series, 50 A, Fast Acting, 48 V	F1		Fuse_Fork_Lift_157.5T05.5101	1
BLM18SG221TN1D	Chip Ferrite Bead, 0603, 1206 @ 100MHz, 25%, 0.04Ω, 2.5A	FB1	FP-BLM18-0_35-65_5-IPC_A	CMP-0686-00586-3	1
USB681	Clamp Sgc Tvs Diode Surface Mount 8-SO	FC1	INF-P-DSO-8-3_M - Duplicated	USB681	1
USB_MIN	Mini USB B Type, 5-Pin SMD, RoHS, Tape and Reel 1001352642121LF	J1	FC1-10035326-N3242LF_V	USB_MIN_CMP-1698-00001-3	1
61800921121	Female PCB Connector with Hex Screw WR-PHD, 2.54 mm, Single Row, 8 pins	J2	61800921121	CMP-1532-00200-1	1
61301621121	THT Vertical Pin Header WR-PHD, Pitch 2.54 mm, Dual Row, 16 pins	J3, J4	61301621121	CMP-1532-01007-1	2
1714965	PC Terminal Block, Pitch 6.35 mm, 1 x 2 Position, Height 25.1 mm, Tail Length 5.1 mm, RoHS, Bulk	J5, J6, J7, J8, J_Accu_GND, J_Accu_Out, J_Fuse_GND, J_Fuse_In, J_Input_GND, J_Input_PWR	Terminal-PHOE-1714965_V	Terminal-CMP-2000-02797-1	10
JUMPER	Jumper Wire	JP1, JP2	FP_CONN2_TUSBE_254MM	JUMPER	2
SELAY_SRD-05VDC-SL-C	5V Trigger Relay Module For Arduino And Raspberry Pi 5V Trigger Relay Module For Arduino And Raspberry Pi	K	FP_CONN3_2MM_90	SELAY_SRD-05VDC-SL-C	1
47 uH/2.6 A	Inductor Power Shielded Wire Wound 20% 1000Hz Ferrite 2.6A 67mOhm DCR Automotive T/R	L1	Tokaros_B82479-A1473-M - duplicate	Inductor_B82479A1473M000	1
Coil	10 uH, 14.9 uH inductor	L2, L3	Tokaros_B65_FERRITE	Coil, Tokaros	2
Header 8	Header, 8-Pin	P1, P3, P4, P5	HDR1X8	Header 8	4
640456-6	Male Header, Pitch 2.54 mm, 1 x 6 Position, Height 10.03 mm, Tail Length 3.56 mm, -55 to 105 degC, Bulk	P6, P7	TECO-640456-6_V	CMP-2000-05661-1	2
61300811121	THT Vertical Pin Header WR-PHD, Pitch 2.54 mm, Single Row, 8 pins	P8, P9	61300811121	CMP-1532-01076-1	2
Output Connector	2pin connector	P10	FP_CONN2_TAP_254MM_N	Connector_2pin	1
Connector	3pin connector	P13	FP_CONN3_TAP_254MM_N	Connector_3pin	1
BSP613P	P-Channel DIPMOS Small Signal Transistor, -60 V VDS, 2.9 A ID, -55 to 150 degC, PG-SOT223 (SC-73), Reel, Green	Q1	INF-PG-SOT223_SC-73_M	CMP-1099-00021-1	1
FDMB86R5-100P5	N-channel 100 V 8.5 m Ω standard level MOSFET in TO220	Q2, Q3, Q4, Q5, Q6, Q7	FFR-TO-220AB-MFG	NMOS-2	6
BC548BBLLG	Amplifier Transistor, NPN Silicon, 5-Pin TO-92, Pb-Free, Tape and Reel	Q8	ONSC-TO-92-3-29-11_AM_BL	CMP-1048-01683-1	1
BC548B	Amplifier Transistor, NPN Silicon, 3-Pin TO-92, Pb-Free, Tape and Reel	Q9, Q10, Q11	ONSC-TO-92-3-29-11_AM_BL	CMP-1048-01683-1	3
4.7k	Resistor	R1, R2, R3, R4, R5, R6, R7, R10, R11, R12, R67	FP_0805_RES	RES	11
1K	Resistor	R8, R63, R88, R98, R101, R86, R89, R100, R105, R103	FP_0805_RES	RES	10
2.2k	Resistor	R9	FP_0805_RES	RES	1
510	Resistor	R13	FP_0805_RES	RES	1
680	Resistor	R14, R25, R49	FP_0805_RES	RES	3
10K	Resistor	R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55	FP_0805_RES	RES	34
120k	Resistor	R20	FP_0805_RES	RES	1
1.05k	Resistor	R21	FP_0805_RES	RES	1
10k	Resistor	R44, R47, R48, R75, R81, R84	FP_0805_RES	RES	6
47k	Resistor	R64	FP_0805_RES	RES	1
400k	Resistor	R65	FP_0805_RES	RES	1
150k	Resistor	R66	FP_0805_RES	RES	1
1.1k	Resistor	R68, R69	FP_0805_RES	RES	2
1.5k	Resistor	R70, R71, R54, R55	FP_0805_RES	RES	4
3k	Resistor	R72, R73, R58	FP_0805_RES	RES	3
270	Resistor	R74, R82	FP_0805_RES	RES	2
1.8	Resistor	R76, R77, R78, R79	FP_0805_RES	RES	4
5k	Resistor	R80, R87, R96, R97	FP_0805_RES	RES	4
220	Resistor	R83	FP_0805_RES	RES	1
1.8	Resistor	R85, R87, R88, R89, R70, R71	FP_0805_RES	RES	6
5k	Resistor	R72, R79	FP_0805_RES	RES	2
220	Resistor	R73, R78	FP_0805_RES	RES	2
400	Resistor	R77	FP_0805_RES	RES	1
200k	Resistor	R90	FP_0805_RES	RES	1
100k	Resistor	R91, R92, R96, R97	FP_0805_RES	RES	4
120	Resistor	R93	FP_0805_RES	RES	1
Transformator	Pulse Transformer for LAN Interface, 2.1 dB, 40 to 85 degC, 6-Pin SMD, RoHS, Tape and Reel	T1	TDK-ALT3232_V	CMP-2000-05771-1	1
TMS320F28069PZT	Piccolo Microcontroller, High-Efficiency 32-Bit CPU, 100 MB, 50 MHz, CPU, 12C, 13 Ch PWM, 2 Ch 12-Bit ADC, -40 to 105 degC, 100-Pin LQFP (PZ), Green (RoHS & no Sb/Br)	U1	RD3100A_N	DSP_100_CMP-0546-00012-3	1
MCP6700-E/TO	SENSOR ANALOG -40C 125C TO92-3	U2, U3, U4, U6, U7, U8	FP-CD4-101-MFG	CMP-0192-00001-2	6
MCP6001RT-I/OT	1 MHz, Low-Power Operational Amplifier, 5-Pin SOT-23, Industrial Temperature, Tape and Reel	U5, U11	SOT-23-OT5_M	CMP-0187-00469-2	2
LM324M	Low Power Quad Operational Amplifier, 14-pin Narrow SOIC	U9	SF_SOIC14	LM324M	1
LM358DR2G	IC OPAMP GP 2 CIRCUIT 8SOIC	U10	FP-751-07-BPC_C	CMP-1310-00291-2	1
TLE6389-2G V50	Step-Down DC/DC Controller, -40 to 150 degC, PG-DSO-14-1, Reel, Green	U12	INF-PG-DSO-14-1_M	CMP-1093-00004-1	1
LM393DR2G	Low Offset Voltage Dual Comparator, 2 to 36 V, 0 to 70 degC, 8-Pin SOIC, Pb-Free, Tape and Reel	U13, U21	ONSC-SOIC-8-751-07_V	CMP-1305-00048-1	2
FT232	USB UART Asynchronous Serial Data Transfer Chip, 28-pin SSOP, Tape and Reel	U14	SSOP-28_N	FT232-CMP28-0079-00029-3	1
2ED020I06FXUMA2	2ED020I06FXUMA2 Gate-Driver IB	U15, U16, U17	IDAR-WSOIC-16_N	GATE_DRIVER_2ED020I06FXUMA2	3
ACS758LCB-050B-PFF-T	SENSOR CURRENT HALL 50A AC/DC	U18, U19	FP-CB-5-PFF-MFG	ACS758LCB-CMP-02022-000254-1	2
MCP2551-I/P	High-Speed CAN Transceiver, 8-Pin PDIP, Industrial Temperature	U22	PDIP308-PR	CMP-0106-00101-2	1