









Comment	Description Cap Ceramic 4.7uF	Designator	Footprint	LibRef	Quantity
1812 4.7uF	Cap Ceramic 4.7uF SOV X7R 10% Pad SMD 1812 125C Automotive T/R	C1, C2	CAP1812	C1812C479K5RACAUT O	
1808 1nF	1808 C 1nF Ceramic Multilayer Capacitor; 2000 VDC; +125degC; X7R Dielec: +/-10%	C3, C4	CAP1808	C1808C102KGRACTU	
0805 100nF	CC Series 0905 0.1 uF 50 V ±10 % Tolerance X7R SMT Multilayer	CS, C8, C10, C11, C13, C14, C15, C17, C18, C19	CAP0805	C C0805K/RX7R988 104	
0805 4.7uF	Ceramic Capacitor 4.7uF ±10% 50V 0805	C19 C6, C7, C9, C12	CAP0905	C2012X5R1H475K125	
10µF 50V	10uF ±20% 50V	C16, C20	CAP_PK/PZ_6P3X11_ OW_RUB	AB SONXF10MEFCSX11	
TOUR SUV	AEC_DSx11mm_2mm _TM 100 µF 25 V	C16, C20	OW_RUB	SURAPIUMEPCSXIII	
100uF 25V	Aluminum Electrolytic Capacitors Radial, Can - 5000 Hrs @ 105°C	C21	CAP_PK/PZ_6P3X11_ OW_RUB	250XF100MEFC6.3X11	
330µF 16V	Cap Aluminum 330uF 16V 20% (6.3 X 11mm) Radial Aluminum Cylindrica Can 2.5mm 360mA 2000 hr 85°C Bulk	C22	CAP_PK/PZ_6P3X11_ OW_RUB	16PK330MEFC6.3X11	
USB Type A RCP	Conn USB Type A RCF 4 POS 2 5mm Solder RA Thru-Hole 4 Terminal 1 Port Embossed T/R	CN1	MOLEX_48258-0001	48258-0001	
0705430005	Conn Shrouded Header (4 Sides) HDB 6 POS 2.54mm Solder ST Top Entry Thru- Hole SL Tube	CN2, CN5, CN12, CN13	FP-0705430005-MFG	0705430005	
09-65-2028	Manufacturer: MolexProduct Category: Headers & Wire HousingsBrand: MolexProduct:	CN3, CN4	FP-09-65-2028-MFG	09-65-2028	
0705430003	StripNumber of 2 S4mm St. Header, Single Row, Vertical, 3.05mm Pocket, Shrouded, 4 Circuits, 0.38µm Gold (Au) Selective Plating, Tin (Sn) PC Tail Plating Schottky Diode, DO-	CN6, CN7, CN8, CN9, CN10, CN11		0705430003	
1N5819 SP0503BAHTG	TVS DIODE 5.5VWM	D1 D2	DIOAD1405W86L465I 235 LFUS-SOT143-4 V	1N5819 SP0503BAHTG	
	8.5VC SOT143-4 Diode Standard	D3, D4, D5, D6, D7,			
1N4004G-T	Recovery Rectifier 400V 1A 2-Pin DO-41 T/R Choke/Filter,	D8, D9, D10, D11, D12 D13, D14, D15, D16, D17, D18, D19, D20	0041-10	1N4004G-T	
450uH Choke	Choke/Filter, Common Mode, WE- CMB Size S HC . .45mH 6.5A 10mOhm	L1	WE-CMB-HC-S	7448227005	
5.6uH Choke	Inductor Power Unshielded Wirewound 5.6uH 20% 100KHz 1.18A 0.18Ohm DCR 1812 Bag	L2	RLSS67	RLS-567	
330uH	Inductor Power Shielded Wirewound 330uH 20% 100KHz Ferrite S80mA 800mOhm DCR Automotive T/R	B	CLF7045_*	CLF7045NIT-331M-D	
RED 0805	Red SMD 625nm LED Indication - Discrete 2V 0805 (2012 Metric)	LED2	LEDC2012X80N	150080R575000	
MMBTA06LT1G	Trans GP BJT NPN 801 0.5A 3-Pin SOT-23 T/6	Q1, Q2	ONSC-SOT-23-3-318- 08_V	MMBTA06LT1G	
IRF640NPBF	Mosfet, Power; N-ch Vdss 200V; Rds(on) 0:15 Ohm; Id 18A; TO 220AB; Pd 150W; Vgs +/-20V	Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10, Q11, Q12, Q13, Q14	TO220AB_VIS	IRF64ONPBF	
0905 10K	10K Omhs 0805 ± 1.00% 0.125W ± 100ppm/*C	R1, R3, R9, R16, R17, R18, R22, R23, R24, R28, R29, R30, R34, R35, R36, R38	RES0805	R00805FR-0710KL	
0805 560R	560 Ohm 0805 ± 1.00% 0.125W ± 100ppm/°C	R2	RES0805	R00805FR-07560RL	
0805 4K7	4700cs ± 1.00% 0.125W ± 100ppm/C 0805	R4, R5	RESOROS	R00805FR-074K7L	
0805 100R	100R ± 1.00% 0.125W ± 100ppm/°C 0805 2.2K Ohm 0805 ±5% 1/8W ±100ppm/°C	R6, R7	RES0805	RC0805FR-07100RL	
0805 2K2	1/8W±100ppm/C 0805 Res SMD 22.1K Ohm	R8	RES0805	R03805/R-072K2L	
0805 22.1K	0.5% 1/8W 0805	R10	RESOROS	RT0805DR£0722K1L	
0805 47.5K	0.125W ± 100ppm/C 0805 200 Ohm 0805 ±	R11	RES0805	R00805FR-0747K5L	
0805 200R	1.00% 0.125W ± 100ppm/°C 109 Ohms +1.00%	R12 R13, R14, R15, R19,	RES0805	R00805FR-07200RL	
0905 10R	0.125W ± 200ppm/C 0805 High Precision-High	R13, R14, R15, R19, R20, R21, R25, R26, R27, R31, R32, R33, R37	CAP0805	RC0805FR-0710RL	
0805 36.5K	Stability Chip Resistor Thin Film 0805 36.5kOhm 0.5% Paper T/R Res Thick Film 0805	R29	RES0805	RT0805DR£0736KSL	
0805 3.3K	Res Thick Film 0805 3.3K Ohm 1% 0.125W(1/8W) ±100ppm/C Epoxy Pad SMD T/R Switch Rocker ON	R40	RES0805	RC0805FR-073K3L	
GW12LIPCF	None ON SPDT PC Pins Paddle Rocker 0:1A 28VAC 28VDC 0:4VA 50000Cycles Module DC-DC 24VIN	SW1	FP-GW12LIPCF-MFG		
URB2405HMD-20WR 4A	1-OUT SV 4A 20W 6-	U1	CONV_URB2405YMD 20WR3	URB2405YMD-20WR3	
R-79C12-1.0	PIN EPE. 1A DC/DC-Converter 1NNOLINE' SIP3 reg: V. In: 15-42; V. Out: 12: mA. Out: 1000 Blue tooth and Wi-Fi Module 2.4GHz to	U2	R-78C12	R-78C12-1.0	
ESP32-WROOM-32D	2.5GHz 2.7V to 3.6V 38-Pin SMD Module	u3	ESP32WROOM32DM		
CP2102N-A02- GQFN28R	Full Speed USB to UART Bridge USB 2.0 3.3V T/R Automotive 28-Pin OFN EP Driver 200V 0.65A 6- OUT HI/Lo Side Half	U4	FP-CP2102N-A02- GQFN28R-IPC_B	CP2102N-A02- GGFN28R	
FAN7888MX	Brdg Non-Inv 20-Pin SOIC W T/R I2C Interface 3400kHs	US, U6	SOIC20_13X7P6_ONS	FAN7888MX MCP29018.F/SP	
NVLP23018-E/SP	5.5V Automotive 28- Pin SPDIP Tube 8-Bit 15MSPS Analog	U7	SPDIP300-SP28	evs.PZSU18-E/SP	
LMGS8P	8-Bit 15MSPS Analog to-Digital Converter (ADC) 24-TSSOP -40 to 75 8-Bit 15MSPS Analog	US	P0008A	LM358P	
				ADC1173CIMTCX/NO	1
ADC1173CIMITCX	to-Digital Converter (ADC) 24-TSSOP -40 to 75 SIMPLE SWITCHE 1A	U9	PW0024A_N	PB	