

Part	Value	Device	Package	Description	VALUE	ASSY?	Manuf.	M Part-Numb	Distributor	Distr. Part-Number			
C1	2.2uF	2.2UF-10V-20	C0603	CAP CER 2.2UF	2.2uF / 50V	YES	Murata	GRM188R61H	Digikey	490-10733-1-ND			
C2	22uF	CAPC0805	C0805	CAP CER 22UF	22uF	YES	Murata	GRM219R61A	Digikey	490-9951-1-ND			
C3	470nF	CAPC1206	C1206	CAP CER 0.47U	470nF	YES	Samsung	CL31B474KAF	Digikey	1276-1088-1-ND			
C4	1.0uF	1.0UF-25V-+8	C0805	CAP CER 1UF 2	1.0uF	YES	TDK	C2012X5R1E1	Digikey	445-1419-1-ND			
C5	2.2uF	2.2UF-10V-20	C0603	CAP CER 2.2UF	2.2uF	YES	Murata	GRM188R61H	Digikey	490-10733-1-ND			
C6	1nF	CAPC1206K	C1206K	CAP CER 1000	1nF / 50V	YES	Samsung	CL31C102JBCN	Digikey	1276-1310-1-ND			
C7	47uF	CAPC1206K	C1206K	CAP CER 47UF	47uF	YES	Kemet	C1206C476M8	Digikey	399-5508-1-ND			
C8	47uF	CAPC1206K	C1206K	CAP CER 47UF	47uF	YES	Kemet	C1206C476M8	Digikey	399-5508-1-ND			
C9	1uF	CAPC0402	C0402	CAP CER 1UF 1	1uF	YES	Murata	GRM155R61A	Digikey	490-3890-1-ND			
C10	1uF	CAPC0402	C0402	CAP CER 1UF 1	1uF	YES	Murata	GRM155R61A	Digikey	490-3890-1-ND			
C11	22uF	CAPC0805	C0805	CAP CER 22UF	22uF	YES	Murata	GRM219R61A	Digikey	490-9951-1-ND			
C12	0.1uF	0.1UF-25V(+80	C0603	CAP CER 0.1UF	0.1uF	YES	Murata	GRM188R61E	Digikey	490-9654-1-ND			
C13	0.1uF	0.1UF-25V(+80	C0603	CAP CER 0.1UF	0.1uF	YES	Murata	GRM188R61E	Digikey	490-9654-1-ND			
C14	0.1uF	0.1UF-25V(+80	C0603	CAP CER 0.1UF	0.1uF	YES	Murata	GRM188R61E	Digikey	490-9654-1-ND			
C15	0.1uF	0.1UF-25V(+80	C0603	CAP CER 0.1UF	0.1uF	YES	Murata	GRM188R61E	Digikey	490-9654-1-ND			
C16	0.1uF	0.1UF-25V(+80	C0603	CAP CER 0.1UF	0.1uF	YES	Murata	GRM188R61E	Digikey	490-9654-1-ND			
C17	15pF	15PF-50V-5%(C0603	CAP CER 15PF	15pF	YES	Murata	GRM1885C1H	Digikey	490-11441-1-ND			
C18	15pF	15PF-50V-5%(C0603	CAP CER 15PF	15pF	YES	Murata	GRM1885C1H	Digikey	490-11441-1-ND			
D1	Zener_5.6V	DIODE-DO-214	DO-214AC	DIODE ZENER 5.6V 3W DO214	YES	Micro Comme	3SMAJ5919B-	Digikey	3SMAJ5919B-TPMSCT-ND				
D2	Schottky	DIODE-DO-214	DO-214AC	DIODE SCHOTTKY 40V 3A SMA	YES	Diodes Inc.	B340A-13-F	Digikey	B340A-FDICT-ND				
D3	Schottky	DIODE-DO-214	DO-214AC	DIODE SCHOTTKY 40V 3A SMA	YES	Diodes Inc.	B340A-13-F	Digikey	B340A-FDICT-ND				
D4	RED	LED-RED0603	LED-0603	LED RED CLEA	RED	YES	Würth Electro	150060RS7500	Digikey	732-4978-1-ND			
D5	RED	LED-RED0603	LED-0603	LED RED CLEA	RED	YES	Würth Electro	150060RS7500	Digikey	732-4978-1-ND			
D6	BLUE	LED-BLUE0603	LED-0603	LED BLUE DIFF	BLUE	YES	OSRAM Opto S	LB Q39E-N1O	Digikey	475-2815-1-ND			
D7	GREEN	LED-GREEN06	LED-0603	LED GREEN CL	GREEN	YES	Kingbright	APTD1608CGC	Digikey	754-1545-1-ND			
D8	Yellow	LED-YELLOW0	LED-0603	LED YELLOW C	Yellow	YES	Würth Electro	150060YS7500	Digikey	732-4981-1-ND			
F1	500mA	PTCSMD	PTC-1206	FUSE PTC RESET 6V .50A 1206	YES	Littelfuse Inc.	1206L050YR	Digikey	F2112CT-ND				
JP1		M02PTH	1X02	CONN HEADER VERT 2POS .10	NO	TE	3-644456-2	Digikey	A31112-ND				
JP2		USB - micro B	USB - micro B -	Connector Rec	USB uB	YES	Hirose	ZX62R-B-5P	Digikey	H11574CT-ND			
JP3	POWER_JACKP	POWER_JACKP	POWER_JACK_	CONN POWER JACK 2.1MM P	NO	CUI Inc.	PJ-202A	Digikey	CP-202A-ND				
JP4		M02-JST-2MM	JST-2-SMD	CONN HEADER PH SIDE 2POS	NO	JST	S2B-PH-SM4-T	Digikey	455-1749-1-ND				
JP5		M05NO_SILK	1X05_NO_SILK	CONN HEADER VERT 5POS .10	NO	TE	3-644456-5	Digikey	A31115-ND				
JP6	CORTEX_DEBU	CORTEX_DEBU	2X5-PTH-1.27	CONN HEADER 10POS DUAL .	NO	Samtec Inc.	FTSH-105-01-L	Digikey	SAM8798-ND				
JP7	ARDUINO_R3	ARDUINO_R3	ARDUINO_R3_	Arduino R3 Footprint (w/ SPI	NO			Sparkfun	S7004-ND, S70 https://www.sparkfun.com/products/11417				
JP8		M02-JST-2-PT	JST-2-PTH-NS	CONN HEADER PH SIDE 2POS	YES	JST	S2B-PH-K-S(LF)	Digikey	455-1719-ND				
JP9		M021X02_NO	1X02_NO_SILK	CONN HEADER VERT 2POS .10	NO	JST	3-644456-2	Digikey	A31112-ND				
JP10	EH01_IO	M05NO_SILK	1X05_NO_SILK	CONN HEADER VERT 5POS .10	NO	JST	3-644456-5	Digikey	A31115-ND				
JP11		M021X02_NO	1X02_NO_SILK	CONN HEADER VERT 2POS .10	NO	JST	3-644456-2	Digikey	A31112-ND				
JP12		M02-JST-2-PT	JST-2-PTH-NS	CONN HEADER PH SIDE 2POS	YES	JST	S2B-PH-K-S(LF)	Digikey	455-1719-ND				

JP13		M02-JST-2MM	JST-2-SMD	CONN HEADER PH SIDE 2POS	NO	JST	S2B-PH-SM4-T	Digikey	455-1749-1-ND			
L1	FB - 30Ohm	INDUCTOR060	603	FERRITE CHIP 300 OHM 500M	YES	TDK	MMZ1608B30	Digikey	445-2165-1-ND			
L2	10uH	INDUCTOR-SR	SRN4065-100	FIXED IND 10UH 2.5A 58.6 M	YES	Bourns Inc.	SRN6045-100	Digikey	SRN6045-100MCT-ND			
Q1			SOT-23-3	MOSFET N-CH 30V 500MA SO	YES	On Semi	NTR4003NT1G	Digikey	NTR4003NT1GOSCT-ND			
Q2	2N7002PW	MOSFET-NCH	SOT-323	MOSFET N-CH 60V 0.31A SOT	YES	NXP	2N7002PW,11	Digikey	568-5987-1-ND			
R1	2M	RESR0402	R0402	RES SMD 2M 2M	YES	Rohm Semico	MCR01MRTF2	Digikey	RHM2MCDCT-ND			
R2	10k	RESR0402	R0402	RES SMD 10K 10k	YES	Yageo	RC0402JR-071	Digikey	311-10KJRCT-ND			
R3	330R	330OHM1/10	R0603	RES SMD 330 330R	YES	Panasonic	ERJ-3GEYJ331	Digikey	P330GCT-ND			
R4	330R	330OHM1/10	R0603	RES SMD 330 330R	YES	Panasonic	ERJ-3GEYJ331	Digikey	P330GCT-ND			
R5	330R	330OHM1/10	R0603	RES SMD 330 330R	YES	Panasonic	ERJ-3GEYJ331	Digikey	P330GCT-ND			
R6	100k	100KOHM-1/1	R0603	RES SMD 100K 100k	YES	Panasonic	ERJ-3GEYJ104	Digikey	P100KGCT-ND			
R7	330R	330OHM1/10	R0603	RES SMD 330 330R	YES	Panasonic	ERJ-3GEYJ331	Digikey	P330GCT-ND			
R8	330R	330OHM1/10	R0603	RES SMD 330 330R	YES	Panasonic	ERJ-3GEYJ331	Digikey	P330GCT-ND			
R9	10K	10KOHM-1/10	R0603	RES SMD 10K 10K	YES	Panasonic	ERJ-3GEYJ103	Digikey	P10KGCT-ND			
S1	RESET	SWITCH-MOM	TACTILE-SWIT	SWITCH TACTILE SPST-NO 0.0	YES	E-Switch	TL3342F160Q	Digikey	EG2531CT-ND	Alternative	C&K Compone	RS-187R05A2-DS MT RT
S2	CRG_STAT	SWITCH-MOM	TACTILE-SWIT	SWITCH TACTILE SPST-NO 0.0	YES	E-Switch	TL3342F160Q	Digikey	EG2531CT-ND	Alternative	C&K Compone	RS-187R05A2-DS MT RT
SJ1	PWR-LED	JUMPER-PAD-	PAD-JUMPER-2-NC_BY_TRACE		NO							
U1	EH01	EH01-P02	QFN20	EH01 uses 0.18um CMOS tech	YES	SiliconReef	EH01					
U2	3.3V	V_REG_AP211	SOT23-5	IC REG LDO 3. 3.3V	YES	Diodes Inc.	AP2112K-3.3T	Digikey	AP2112K-3.3TRG1DICT-ND			
U3	ATSAMD21G-	ATSAMD21G-	TQFP-48	Atmel SAMD21G SMART ARM	YES	Atmel	ATSAMD21G1	Digikey	ATSAMD21G18A-AU-ND			
Y1	32.768kHz	CRYSTAL3.2X1.	Crystal 32.768	32.768kHz ±10ppm Crystal 12.	YES	Abracon LLC	ABS07-32.768	Digikey	535-9808-1-ND			
				CONN HOUSING PH 2POS 2M	YES	JST	PHR-2	Digikey	455-1165-ND			
				CONN TERMINAL 28-24AWG T	YES	JST	SPH-002T-P0.5	Digikey	455-2148-1-ND			