

Copyright RESTEP 2021. www.restep.eco

This source describes Open Hardware and is licensed under the CERN-OHL-S v2. You may redistribute and modify this source and make products using it under the terms of the CERN-OHL-S v2 (<https://ohwr.org/cern-ohl-s-v2.txt>). This source is distributed WITHOUT ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING OF MERCHANTABILITY, SATISFACTORY QUALITY AND FITNESS FOR A PARTICULAR PURPOSE. Please see the CERN-OHL-S v2 for applicable conditions.

Source location: <https://github.com/restep-eco/Restep>

As per CERN-OHL-S v2 section 4, should You produce hardware based on this source, You must where practicable maintain the Source Location visible on the external case of the Battery Charger Module or other products you make using this source.

This document is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.



Ref. Des.	Manufacturer	Manufacturer Part Number	Description	Quantity
2C1, 2C4, 2C7, 2C8, 2C9, 2C50, C1, C2, C8, C10, C18, C19, C22, C25, C26, C28, C40, C45, C47, C48	Murata	GRM188R71H104KA93D	CAP CER 0.1UF 50V X7R 0603	20
2C49, C4, C5, C6, C11, C12, C13, C14, C15, C31, C36, C37, C39	Kemet	C1206C475K5PACTU	CAP CER 4.7UF 50V X5R 1206	13
2R1, 2R2, 2R3, 2R4, R12, R15, R18, R22, R24, R29, R36	Vishay	CRCW06030000Z0EAC	RES 0 OHM JUMPER 1/10W 0603	11
N/A	McMasterCarr	8859K481	Ultra-Formable 260 Brass, 1 Foot Long Rod, 1/32" Diameter	10
R8, R9, R25, R34, R35	Vishay	CRCW060310R0FKTA	RES SMD 10 OHM 1% 1/10W 0603	5
R5, R7, R10, R14, R17	Stackpole	RMCF0603FT10K0	RES 10K OHM 1% 1/10W 0603	5
N/A	McMasterCarr	93580A115	Press-Fit Studs, 18-8 Stainless Steel, 4-40 Thread, 3/8" Long, PEM® Fhs440-6	5

RESTEP BATTERY CHARGER MODULE BILL OF MATERIALS

6/8/2021

N/A	McMasterCarr	96278A005	18-8 Stainless Steel Locknut with External-Tooth Lock Washer, 4-40 Thread Size	5
N/A	McMasterCarr	8965K36	Super-Conductive 101 Copper Rod, 5/32" Diameter	3
C7, C16	Rubycon	50PEV100M10X10.5	CAP ALUM POLY HYB 100UF 50V SMD	2
C21, C27	Kemet	C0603C334K8RACTU	CAP CER 0.33UF 10V X7R 0603	2
2J3, 2J4	Amphenol	T70243500000G	TERM BLK 2P SIDE ENT 7.62MM PCB	2
R39, R40	Vishay	CRCW0805215RFKEA	RES SMD 215 OHM 1% 1/8W 0805	2
R41, R42	Vishay	CRCW0805182RFKEA	RES SMD 182 OHM 1% 1/8W 0805	2
R37, R38	Vishay	CRCW0805174RFKEA	RES SMD 174 OHM 1% 1/8W 0805	2
N/A	McMasterCarr	91075A234	Male-Female Threaded Hex Standoff, 18-8 Stainless Steel, 3/16" Hex, 5/8" Long, 4-40 to 4-40 Thread	2
R1	Vishay	CRCW0603226KFKEA	RES SMD 226K OHM 1% 1/10W 0603	1
C29	Kemet	C0603C102J5GALTU	CAP CER 1000PF 50V COG/NP0 0603	1
C23	Kemet	C1206C106K8RACAUTO	CAP CER 10UF 10V X7R 1206	1
L2	Coilcraft	MLC1555-551ML	Fixed Inductors 550nH Shld 20% 22.3A 1.48mOhm AECQ2	1
D1	On Semi	MMBD914LT3G	DIODE GP 100V 200MA SOT23-3	1
2J1-1	NorComp	680M13W3103L401	CONN D-SUB PLUG 13POS PNL MNT	1
C17	Kemet	C0603C101K5GACTU	CAP CER 100PF 50V COG/NP0 0603	1
C32	Kemet	C0603C224K8RACTU	CAP CER 0.22UF 10V X7R 0603	1
C33	Kemet	C0603C103J3GACTU	CAP CER 10000PF 25V COG/NP0 0603	1
D2	CREE	CLX6F-FKC-CNP1ST1E1BB7D3D3	LED RGB 6PLCC SMD	1
R30	Vishay	CRCW0603200RFKEA	RES SMD 200 OHM 1% 1/10W 0603	1
R27	Stackpole	RMCF0603FT95K3	RES 95.3K OHM 1% 1/10W 0603	1
R3	Vishay	CRCW060364K9FKEA	RES SMD 64.9K OHM 1% 1/10W 0603	1
R4	Bourns	CRE2512-FZ-R003E-2	RES 0.003 OHM 1% 2W 2512	1
Q5	On Semi	FDMC8030	MOSFET 2N-CH 40V 12A 8POWER33	1
U1	Linear Technology	LTC4015EUHF#PBF	IC BATT CHG MULT-CHEM 2CEL 38QFN	1
J3	TE Connectivity	2-1445096-3	CONN HEADER SMD 3POS 3MM	1

RESTEP BATTERY CHARGER MODULE BILL OF MATERIALS

6/8/2021

L1	Coilcraft	PFL2510-151ME	Fixed Inductors 150nH Shld 20% 2.9A 36mOhms	1
R23	Panasonic	ERA-3AEB3013V	RES SMD 301K OHM 0.1% 1/10W 0603	1
L3	Coilcraft	SER2915L-103KL	Fixed Inductors 10uH Shld 20% 17.6A 1.65mOhm AECQ2	1
Q3	Vishay	SI1926DL-T1-GE3	MOSFET 2N-CH 60V 0.37A SOT363	1
U2	Texas Instruments	SN74LV8153PWR	IC SERIAL-PARALLEL INTRF 20TSSOP	1
Q1	Vishay	TP0610K-T1-E3	MOSFET P-CH 60V 185MA SOT23-3	1
2J1-2	NorComp	680M13W3203L401	CONN D-SUB RCPT 13POS PNL MNT	1
C20 (DNP)	Kemet	C1206C105K3RACTU	CAP CER 1UF 25V X7R 1206	1
R2	Stackpole	RMCF0603FT47K0	RES 47K OHM 1% 1/10W 0603	1
C24	Kemet	C0603C474K4RAL7867	CAP CER 0.47UF 16V X7R 0603	1
R28	Bourns	CRE2512-FZ-R002E-3	RES 0.002 OHM 1% 3W 2512	1
Q2	On Semi	NVTF55C466NLTAG	MOSFET N-CH 40V 51A 8WDFN	1
Q4	STMicroelectronics	STL60P4LLF6	MOSFET P-CH 40V 60A POWERFLAT	1
N/A	Littlefuse	0997010.WXN	FUSE AUTO 10A 58VDC BLADE MINI	1
J1	Samtec	HW-17-09-F-D-375-SM	CONN HDR 34POS 0.1 STACK SMD	1
F1	Keystone	3588	FUSE HOLDER BLADE 500V 20A SMD	1
N/A	Leader Tech	TGF10-07870787-020	THERM PAD 199.9MMX199.9MM GRAY	1
2C2, 2C3, 2C5, 2C6, 2C10, 2C11, 2C12, 2C13, 2C14, 2C15, 2C30, 2C34, 2C35, 2C41, 2C42, 2C44, 2J2, 2R5, 2R6, 2R26, 2R32, C3, C9, C43, C46, R6, R11, R13, R16, R19, R20, R21	DNP	DNP		32