

Bill of Materials

MCP19111 Battery Charger Evaluation Board

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Board Number: 04-10117
Part Number: ADM00513
Revision: 2
Engineer: Train Lin
Drawn By: Joseph Depew



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Quantity	Designator	Description_	Manufacturer 1	Manufacturer Part Number 1	Supplier 1	Supplier Part Number 1
3	C1, C19, C20	CAP CER 1uF 16V 10% X7R SMD 0603	Yageo	CC0603KRX7R7BB105	Farnell	1458900
6	C2, C3, C4, C5, C6, C7	CAP CER 10uF 50V 10% X5R SMD 1210	Taiyo Yuden	UMK325BJ106KM-T	Digi-Key	587-2247-1-ND
1	C8	CAP CER 1000pF 50V 10% X7R 0603	TDK	C1608X7R1H102K	Digi-Key	445-1308-1-ND
1	C9	CAP CER 100pF 50V 10% X7R SMD 0603	Vishay Vitramon	VJ0603Y101KXACW1BC	Digi-Key	720-1373-2-ND
1	C10	CAP CER 0.47uF 50V 20% X5R SMD 0603	TDK Corporation	C1608X5R1H474M080AB	Digi-Key	445-7465-2-ND
1	C11	CAP CER 0.47uF 25V 10% X7R SMD 0603	Murata	GRM188R71E474KA12D	Digi-Key	490-3291-1-ND
3	C12, C13, C14	CAP CER 22uF 25V 20% X5R SMD 1210	Taiyo Yuden	TMK325BJ226MM-T	Digi-Key	587-2086-1-ND
1	C15	CAP CER 4.7uF 50V 10% X5R SMD 0805	TDK Corporation	C2012X5R1H475K125AB	Digi-Key	445-5980-1-ND
1	C16	CAP CER 0.1uF 50V 10% X7R SMD 0603	Murata	GRM188R71H104KA93D	Digi-Key	490-1519-1-ND
1	D1	DIO LED RED 2V 30mA 2mcd Clear SMD 0603	Lite-On	LTST-C190EKT	Digi-Key	160-1182-1-ND
1	J1	CON HDR-2.54mm Male 1x6 Tin Lock 7.49MH TH VERT	TE Connectivity AMP Cor	640456-6	Digi-Key	A1923-ND
2	J2, J3	CON HDR-2.54 Male 1x6 Gold 5.84MH TH R/A	FCI	68016-106HLF	Digi-Key	609-3313-ND
1	L1	INDUCTOR 5.6uH 11.4A 20% SMD L7.5W7.2H7	Coilcraft	XAL7070-562MEC	Mouser	994-XAL7070-562MEC
2	Q1, Q3	TRANS FET N-CH BSZ110N06NS3 G 60V 20A 50W TSDSON-8	Infineon Technologies	BSZ110N06NS3 G	Digi-Key	BSZ110N06NS3GINTR-ND
1	Q2	TRANS FET P-CH AON7423 20V 28A 6.2W 8-PowerWDFN	Alpha & Omega Semicon	AON7423	Digi-Key	785-1310-2-ND
1	Q4	TRANS FET N-CH SI2318DS-T1-GE3 40V 3A 750mW SOT-23-3	Vishay Siliconix	SI2318DS-T1-GE3	Digi-Key	SI2318DS-T1-GE3TR-ND
1	R4	RES TKF 1.8M 1% 1/10W SMD 0603	Panasonic Electronic Cor	ERJ-3EKF1804V	Digi-Key	P1.80MHCT-ND
1	R5	RES TKF 499k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF4993V	Digi-Key	P499KHCT-ND

5	R6, R13, R14, R28, R33	RES TF 10k 1% 1/8W SMD 0603	Vishay Beyschlag	MCT06030C1002FP500	Digi-Key	MCT0603-10.0K-CFTR-ND
1	R9	RES TKF 75R 1% 1/4W SMD 1206	Panasonic Electronic Cor	ERJ-8ENF75R0V	Digi-Key	P75.0FCT-ND
2	R10, R37	RES TF 100k 1% 1/8W SMD 0603	Vishay	MCT06030C1003FP500	Digi-Key	MCT0603-100K-CFTR-ND
1	R12	RES SHUNT TF 0.01R 1% 1W SMD 0612	SUSUMU	PRL1632-R010-F-T1	Digi-Key	PRL1632.010FCT-ND
1	R15	RES TKF 10R 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF10R0V	Digi-Key	P10.0HTR-ND
3	R16, R21, R27	RES TKF 1k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1001V	Digi-Key	P1.00KHCT-ND
1	R17	RES TKF 49.9k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF4992V	Digi-Key	P49.9KHTR-ND
2	R18, R19	RES TKF 2k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF2001V	Digi-Key	P2.00KHTR-ND
2	R20, R25	RES TKF 510R 1% 1/10W SMD 0603	ROHM	MCR03EZPFX5100	Digi-Key	RHM510HCT-ND
2	R22, R23	RES TKF 20k 1% 1/10W SMD 0603	Yageo	9C06031A2002FKHFT	Digi-Key	311-20.0KHTR-ND
3	R24, R41, R42	RES TKF 0R 1/10W SMD 0603	NIC Components	NRC06Z0TRF	NIC Componen	NRC06Z0TRF
3	R38, R39, R40	RES TKF 4.99k 1% 1/10W SMD 0603	Yageo	9C06031A4991FKHFT	Digi-Key	311-4.99KHTR-ND
1	R43	RES TKF 15.8K 1% 1/10W SMD 0603	Panasonic Electronic Cor	ERJ-3EKF1582V	Digi-Key	P15.8KHCT-ND
2	SW1, SW2	SWITCH TACT SPST 12V 50mA TL3301AF260QG SMD	E-Switch	TL3301AF260QG	Digi-Key	EG2527CT-ND
2	TP3, TP4	CON JACK Banana 4.5mm Female TH VERT	Keystone Electronics	575-8	Digi-Key	36-575-8-ND

Microchip Parts listed below

1	U1	MCHP ANALOG OPAMP 2-Ch 1.2MHz MCP6072T-E/MNY TDFN-8	Microchip Technology	MCP6072T-E/MNY	Microchip Tech	MCP6072T-E/MNY
1	U2	MCHP ANALOG PWM CONTROLLER 1.6Mhz MCP19111-E/MQ QFN-28	Microchip	MCP19111-E/MQ	Digi-Key	MCP19111-E/MQ-ND

Mechanical Parts to be added in the package

1	LABEL1	LABEL, NEED HELP WITH ASSY/SERIAL				
4	Ea. Corner hole on PCB	HEX STANDOFF 6-32 NYLON 3/8"	Keystone Electronics	1903B	Digi-Key	36-1903B-ND
4	Ea. Corner hole on PCB	MACHINE SCREW PAN PHILLIPS 6-32	B&F Fastener Supply	NY PMS 632 0025 PH	Digi-Key	H554-ND

PCB

1	PCB1	Printed Circuit Board		04-10117-R2		
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Do Not Populate Parts listed below

1	C17	CAP CER 220pF 50V 10% X7R SMD 0603	TDK	C1608X7R1H221K	Digi-Key	445-1306-1-ND
2	C21, C22	CAP CER 0.1uF 25V 20% X7R SMD 0603	KEMET	C0603C104M3RACTU	Digi-Key	399-1283-2-ND
1	D2	DIO LED RED 2V 30mA 2mcd Clear SMD 0603	Lite-On	LTST-C190EKT	Digi-Key	160-1182-1-ND
1	R11	RES TKF 470R 1% 1/4W SMD 1206	Panasonic Electronic Cor	ERJ-8ENF4700V	Digi-Key	P470FCT-ND
3	R29, R30, R35	RES TKF 1k 1% 1/10W SMD 0603	Panasonic	ERJ-3EKF1001V	Digi-Key	P1.00KHCT-ND
4	R31, R32, R34, R36	RES TKF 10k 1% 1/16W SMD 0603	SPC Technology	MCHP03W8F1002T5E	Newark	01N6844

Approved	Notes

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