

MAXREFDES114# Reference Design BOM RevA

Designation	Qty	Description
C1	1	22uF 20%,63V, Aluminum electrolytic capacitor Panasonic EEV-FK1J220XP
C2	1	8200pF 10%, 50V, X7R ceramic capacitor (0402) VENKEL LTD C0402X7R500822KNP
C4	1	2.2uF 10%, 50V, X7R ceramic capacitor (1206) MURATA/TAIYO YUDEN GRM31CR71H225KA88;UMK316B7225K
C5	1	68pF, 5%, 50V, C0G ceramic capacitor (0402) KEMET/MURATA C0402C680J5GAC;GRM1555C1H680JA01
C6,C8	2	0.047uF 10%, 25V, X7R ceramic capacitors (0402) TDK/MURATA C1005X7R1E473K; GRM155R71E473K
C7	1	0.47uF 10%, 50V, X7R ceramic capacitor (0805) KEMET/MURATA C0805C474K5RAC; GCM21BR71H474K
C9,C18	2	2.2uF, 10%, 16V, X7R ceramic capacitors (0805) KEMET/MURATA C0805C225K4RAC; GRM21BR71C225KA12
C11	1	1000pF 10%, 50V, X7R ceramic capacitor (0402) KEMET/MURAT C0402C102K5RAC;GRM155R71H102KA01
C12	1	3900PF 5%, 100V, X7R ceramic capacitor (1206) MURATA GRM319R72A392JA01
C13	1	1000pF 10%, 2000V, X7R ceramic capacitor (1808) TDK C4520X7R3D102K130KA
C15	1	0.47uF 10%, 16V, X7R ceramic capacitor (0603) KEMET/MURATA C0603C474K4RAC; GRM188R71C474K
C17,C19,C20,C23	4	22uF 10%, 10V, X7R ceramic capacitors (1210) MURATA GRM32ER71A226K
C21	1	220pF 10%, 50V, C0G ceramic capacitor (0402) KEMET C0402C221K5GAC
C24	1	0.01uF 10%, 16V, X7R ceramic capacitor (0402) NIC COMPONENTS CORP./MURATA/YAGEO NMC0402X7R103K16TRP; GRM155R71C103KA01; CC0402KRX7R7BB103
D3,D7	2	Fast-switching diodes, 100V 300mA (SOD-123) Diodes Inc. 1N4148W-7-F
D8	1	1.24-18V shunt voltage reference (SOT-23-3) Diodes Inc. TLV431BFTA
VIN, GNDO, PGND, VOUT	4	CONNECTOR; MALE; THROUGH HOLE; POWER HEADER AND BOARD STACKER; STRAIGHT; 1PIN SAMTEC FWJ-01-01-T-S
L1	1	INDUCTOR; SMT; COMPOSITE CORE; 4.7UH; TOL=+/-20%; 5.9A Coilcraft XAL5030-472ME
N1	1	TRAN; N-CHANNEL 75-V (D-S) MOSFET; NCH; I-(16A); V-(75V) Vishay SI7812DN-T1-GE3
N2,N3	2	TRAN; N-CHANNEL 25-V (D-S) MOSFET; NCH; I-(20A); V-(25V) VISHAY SIR412DP-T1-GE3
P1	1	MOSFET P-CH 80V 2.2A (SOT23-3) Vishay SI2337DS-T1-GE3
Q4	1	Optocoupler transistor (SOIC 4) Avago ACPL-217-56AE

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Designation	Qty	Description
R1,R7,R33	3	30k ohm 1% resistor (0402) Any Any
R3	1	20k ohm 1% resistor (0402) Any Any
R5	1	15k ohm 1% resistor (0402) Any Any
R6	3	24k ohm 1% resistor (0402) Any Any
R9	1	47k ohm 1% resistor (0402) Any Any
R10	1	22k ohm 1% resistor (0402) Any Any
R11	1	680k ohm 1% resistor (0402) Any Any
R15	1	10k ohm 1% resistors (0402) Any Any
R16	1	6.49k ohm 1% resistors (0402) Any Any
R17	1	220 ohm 1% resistor (0402) Any Any
R18	1	RESISTOR; 2010; 0.1 OHM; 1%; 75PPM; 1W; THICK FILM TT VISHAY DALE WSL2010R1000FEA18
R23,R24	2	10 ohm 1% resistors (0402) Any Any
R26	1	470 ohm 1% resistor (0402) Any Any
R27	1	10K OHM; 0.5%; 50PPM; 0.063W; THICK FILM resistor(0603) Panasonic ERJ-3RBD1002V
R31	1	510 OHM; 1%; 100PPM; 0.10W; THICK FILM resistor (0402) PANASONIC ERJ-2RKF5100X
R32	1	91k ohm 1% resistor (0402) Any Any
R34	1	0 ohm 1% resistor (0402) Any Any
T1	1	transformer Würth 750315945r02 Sumida 13324-T106 HanRun HR051434A Halo TGSP-P148EP13
U1	1	Active-Clamp Current-Mode PWM Controller (16 TQFN-EP) Maxim MAX17599ATE+
C3, C14,C16,C22	0	Not installed, ceramic capacitor (0402)
R2, R4,R30	0	Not installed, resistor (0402)
R20, R25,R35	0	Not installed, resistor (1206)
PCB	1	PC board: MAXREFDES114# 24V Input 5V Output 10W Converter

