

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
C1, C2, C3, C4, C5, C6, C51, C53	8	33pF	CAP, CERM, 33 pF, 50 V, +/- 5%, C0G/NP0, 0603	603	GRM1885C1H330JA01D	MuRata		
C7, C36, C38	3	1uF	CAP, CERM, 1 µF, 25 V,+/- 10%, X7R, 0603	603	GRJ188R71E105KE11D	MuRata		
C8, C11, C12, C33, C47, C50, C55, C57, C59, C60, C77	11	0.1uF	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	603	GRM188R71E104KA01D	MuRata		
C9	1	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603	603	GRM1885C1H102JA01D	MuRata		
C28, C62, C63, C64, C65, C66, C68, C69, C70, C71, C72, C73, C74, C75, C76	15	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	603	GRM188R71H102KA01D	MuRata		
C31, C52	2	0.01uF	CAP, CERM, 0.01 uF, 25 V, +/- 10%, X7R, 0603	603	GRM188R71E103KA01D	MuRata		
C32	1	10uF	CAP, CERM, 10 uF, 16 V, +/- 10%, X7R, 0805	805	CL21B106KOQNNNE	Samsung Electro-Mechanics		
C34, C35, C37	3	10uF	CAP, CERM, 10 uF, 25 V, +/- 10%, X5R, 0805	805	TMK212BBJ106KG-T	Taiyo Yuden		
C39, C40	2	10uF	CAP, CERM, 10 uF, 10 V, +/- 20%, X7R, 0603	603	GRM188Z71A106MA73D	MuRata		
C41, C48	2	2200pF	CAP, CERM, 2200 pF, 25 V, +/- 10%, X7R, 0603	603	GRM188R71E222KA01D	MuRata		
C42	1	820pF	CAP, CERM, 820 pF, 100 V, +/- 10%, X7R, 0603	603	GRM188R72A821KA01D	MuRata		
C43	1	470pF	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, 0603	603	GRM188R71H471KA01D	MuRata		
C45	1	0.015uF	CAP, CERM, 0.015 uF, 50 V, +/- 10%, X7R, 0603	603	GRM188R71H153KA01D	MuRata		
C54, C56, C58, C61, C78	5	2.2uF	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7R, 0603	603	GRM188R71A225KE15D	MuRata		
D1, D2	2	30V	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23	BAT54A-7-F	Diodes Inc.		
D3, D4	2	100V	Diode, Ultrafast, 100 V, 0.25 A, SOD-323	SOD-323	BAS316,115	Nexperia		
D10	1	30V	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323	BAT43WS-7-F	Diodes Inc.		
D11	1	Green	LED, Green, SMD	1.6x0.8x0.8mm	LTST-C190GKT	Lite-On		
D13	1	75V	Diode, Switching, 75 V, 0.15 A, SOD-323	SOD-323	1N4148WX-TP	Micro Commercial Components		
J1	1		Header, 100mil, 7x2, Tin, TH	Header, 7x2, 100mil, Tin	PEC07DAAN	Sullins Connector Solutions		
J2	1		Header (shrouded), 100mil, 5x2, Gold, TH	5x2 Shrouded header	5103308-1	TE Connectivity		
J3	1		Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin	PEC02SAAN	Sullins Connector Solutions		
J4	1		Receptacle, 2mm, 20x2, Gold, R/A, TH	Header, 20x2 2 mm pitch receptacle Right Angle	NPPN202FJFN-RC	Sullins Connector Solutions		
J5	1		Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin	PEC03SAAN	Sullins Connector Solutions		
Q8, Q10	2	60V	MOSFET, N-CH, 60 V, 0.115 A, SOT-323	SOT-323	2N7002W-7-F	Diodes Inc.		None
Q9	1	40 V	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23	MMBT3904LT1G	ON Semiconductor		
R1, R2, R3, R4, R16, R17, R18, R19, R21, R26, R32, R33, R128, R130, R135, R137, R139	17	100	RES, 100, 1%, 0.1 W, 0603	603	RC0603FR-07100RL	Yageo		
R5, R6, R7, R9, R10, R22, R23, R24, R25, R39, R84, R93, R115	13	10.0k	RES, 10.0 k, 1%, 0.1 W, 0603	603	RC0603FR-0710KL	Yageo		
R8, R11, R12, R13, R14, R15, R20, R95, R131	9	0	RES, 0, 5%, 0.1 W, 0603	603	RC0603JR-070RL	Yageo		
R29	1	1.30k	RES, 1.30 k, 1%, 0.1 W, 0603	603	RC0603FR-071K3L	Yageo		
R30	1	42.2k	RES, 42.2 k, 1%, 0.1 W, 0603	603	RC0603FR-0742K2L	Yageo		
R31	1	0.01	RES, 0.01, 1%, 0.1 W, 0603	603	WSL0603R0100FEA	Vishay-Dale		
R75, R85	2	5.10k	RES, 5.10 k, 1%, 0.1 W, 0603	603	RC0603FR-075K1L	Yageo		
R86	1	27.0k	RES, 27.0 k, 1%, 0.1 W, 0603	603	RC0603FR-0727KL	Yageo		
R87, R88, R117, R118, R120, R129, R132, R133, R134, R136, R138, R140, R141, R142, R143	15	1	RES, 1.00, 1%, 0.1 W, 0603	603	RC0603FR-071RL	Yageo		
R89	1	3.00k	RES, 3.00 k, 1%, 0.1 W, 0603	603	RC0603FR-073KL	Yageo		
R90	1	13.0k	RES, 13.0 k, 1%, 0.1 W, 0603	603	RC0603FR-0713KL	Yageo		
R91	1	0.5	RES, 0.5, 1%, 0.125 W, 0603	603	CSR0603FKR500	Stackpole Electronics Inc		
R92	1	7.15k	RES, 7.15 k, 1%, 0.1 W, 0603	603	RC0603FR-077K15L	Yageo		
R94, R97, R98	3	549	RES, 549, 1%, 0.1 W, 0603	603	RC0603FR-07549RL	Yageo		
R96	1	200k	RES, 200 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603	CRCW0603200KFKEA	Vishay-Dale		
R99	1	34.8k	RES, 34.8 k, 1%, 0.1 W, 0603	603	RC0603FR-0734K8L	Yageo		
R102	1	22.6k	RES, 22.6 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603	CRCW060322K6FKEA	Vishay-Dale		
R103, R109	2	16.2k	RES, 16.2 k, 1%, 0.1 W, 0603	603	RC0603FR-0716K2L	Yageo		
R104, R114	2	1.82k	RES, 1.82 k, 1%, 0.1 W, 0603	603	RC0603FR-071K82L	Yageo		
R106, R121, R122, R123, R124, R125, R126, R144	8	2.00k	RES, 2.00 k, 1%, 0.1 W, 0603	603	RC0603FR-072KL	Yageo		

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R110, R111, R112, R113, R116	5	1.00k	RES, 1.00 k, 1%, 0.1 W, 0603	603	RC0603FR-071KL	Yageo		
R119	1	16.0k	RES, 16.0 k, 1%, 0.1 W, 0603	603	RC0603FR-0716KL	Yageo		
R127	1	20.5k	RES, 20.5 k, 1%, 0.1 W, 0603	603	RC0603FR-0720K5L	Yageo		
R145	1	100k	RES, 100 k, 1%, 0.1 W, 0603	603	RC0603FR-07100KL	Yageo		
S1	1		Switch, SPST-NO, Off-Mom, 1 Pos, 0.05A, 12 VDC, SMT	6.2x6.2mm	4.30152E+11	Würth Elektronik		
U1	1		Dual 2-Input Positive-AND Gate, DCU0008A (VSSOP-8)	DCU0008A	SN74LVC2G08DCUR	Texas Instruments		
U2	1		Low Power Dual Operational Amplifier, 8-pin Narrow SOIC, Pb-Free	D0008A	LM2904M/NOPB	Texas Instruments		
U8	1		150-mA, 30-V, 1-uA IQ Voltage Regulator with Enable, DRV0006A (WSON-6)	DRV0006A	TPS70933QDRVRQ1	Texas Instruments		Texas Instruments
U9	1		High-Speed, Single-Supply, Rail-to-Rail Operational Amplifier MicroAmplifier(TM) Series, 2.7 to 5.5 V, -40 to 85 degC, 8-pin SOIC (D8), Green (RoHS & no Sb/Br)	D0008A	OPA350UA	Texas Instruments		
U10	1		Highly Integrated Digital Controller for Isolated Power with 3 Feedback Loops and 8 DPWM Outputs, RGC0064B (VQFN-64)	RGC0064B	UCD3138RGCR	Texas Instruments	UCD3138RGCT	Texas Instruments

Notes:
Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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