

# Bill of Materials

TI DESIGNS

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	
R15	1	100k, DNP	RES, 100k ohm, 5%, 0.1W,	0603	DNP	DNP	
R13, R17, R18	3	10k, DNP	RES, 10k ohm, 5%, 0.1W, 0603	0603	DNP	DNP	
R19	1	3.0k, DNP	RES, 3.0k ohm, 5%, 0.1W, 0603	0603	DNP	DNP	
C20, C21	2	220uF	CAP, AL, 220uF, 50V, +/-20%, 0.3 ohm, SMD	SMT Radial G	EEE-FK1H221P	Panasonic	
C11	1	47uF	CAP, AL, 47uF, 25V, +/-20%, 0.36 ohm, SMD	SMT Radial D	EEE-FK1E470P	Panasonic	
C14	1	0.015uF	CAP, CERM, 0.015uF, 50V, +/-10%, X7R, 0603	0603	GRM188R71H153KA01D	MuRata	
C24	1	0.01uF	CAP, CERM, 0.01uF, 100V, +/-10%, X7R, 0603	0603	C1608X7R2A103K	TDK	
C3	1	0.022uF	CAP, CERM, 0.022uF, 50V, +/-10%, X7R, 0603	0603	C1608X7R1H223K	TDK	
C2, C9, C22	3	0.1uF	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603	0603	GRM188R72A104KA35D	MuRata	
C23, C34, C35, C36, C37	5	0.1uF	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	0603	C0603C104J4RACTU	Kemet	
C12, C19	2	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0603	0603	C1608X7R1E104K	TDK	
C5, C6, C7, C10	4	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603	C1608X7R1H104K	TDK	
C31, C32, C33	3	1000pF	CAP, CERM, 1000pF, 50V, +/-5%, C0G/NP0, 0603	0603	C0603C102J5GAC	Kemet	
C15	1	120pF	CAP, CERM, 120pF, 50V, +/-5%, C0G/NP0, 0603	0603	GRM1885C1H121JA01D	MuRata	
C13	1	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	0603	C1608X5R1E105K080AC	TDK	
C16, C17	2	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	0603	GRM188R61E105KA12D	MuRata	

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
C1, C8, C28, C29, C30	5	2.2uF	CAP, CERM, 2.2uF, 100V, +/-10%, X7R, 1210	1210	GRM32ER72A225KA35L	MuRata
C38	1	2.2uF	CAP, CERM, 2.2uF, 10V, +/-20%, X5R, 0603	0603	C0603C225M8PACTU	Kemet
C4	1	2.2uF	CAP, CERM, 2.2uF, 25V, +/-10%, X5R, 0805	0805	GRM219R61E225KA12D	MuRata
C25, C26, C27	3	2200pF	CAP, CERM, 2200pF, 16V, +/-10%, X7R, 0603	0603	GRM188R71C222KA01D	MuRata
C18	1	6800pF	CAP, CERM, 6800pF, 50V, +/-	0603	GRM188R71H682KA01D	MuRata
J3, J4	2	20-Pin/2-Row	CONN RCPT 20POS .100 DL		89898-310ALF	FCI
D3	1	100V	Diode, Schottky, 100V, 2A,	SMB	CDBB2100-G	Comchip Technology
U2	1	NUP4201MR6	IC, 500w 6v, Transient	SOT	NUP4201MR6	On Semi
U1	1	DRV8301DCA	IC, 3 Phase Pre-Driver with		DRV8301DCA	Texas Instruments
U3	1	OPA2374AIDCNx	IC, CMOS, R-R I/O Op Amp,	SSOP-8	OPA2374AIDCN	TI
L1	1	33uH	INDUCTOR SHIELD PWR	0.300" sq	DR74-330-R	Cooper Bussmann
D4, D5	2	GREEN	LED THIN 565NM GRN DIFF		SML-LXT0805GW-TR	Lumex Opto/Components Inc
D1	1	YELLOW	LED THIN 585NM YEL DIFF		SML-LXT0805YW-TR	Lumex Opto/Components Inc
D2	1	RED	LED THIN660NM SUPRED		SML-LXT0805SRW-TR	Lumex Opto/Components Inc
Q1, Q2	2	P_CH	MOSFET P-CH 8V 5.4A		SI2325DS-T1-E3	Vishey Siliconix
Q3, Q4,	6	CSD18533Q5A	MOSFET, N-Chan, 60V, 18A,	QFN-8 POWER	CSD18533Q5A	TI
R14, R16	2	0	RES, 0 ohm, 5%, 0.1W, 0603	0603	CRCW06030000Z0EA	Vishay-Dale
R34, R35,	3	0.01	RES, 0.01 ohm, 1%, 3W,	2512	CRA2512-FZ-R010ELF	Bourns
R5	1	1.0	RES, 1.0 ohm, 5%, 0.1W,	0603	CRCW06031R00JNEA	Vishay-Dale
R44, R45	2	1.00k	RES, 1.00k ohm, 1%, 0.1W,	0603	CRCW06031K00FKEA	Vishay-Dale
R6, R9	2	1.0k	RES, 1.0k ohm, 5%, 0.1W,	0603	CRCW06031K00JNEA	Vishay-Dale
R28, R29,	6	10	RES, 10 ohm, 5%, 0.1W,	0603	CRCW060310R0JNEA	Vishay-Dale
R8, R43,	4	10.0k	RES, 10.0k ohm, 0.1%, 0.1W,	0603	RG1608P-103-B-T5	Susumu Co Ltd
R2, R3,	4	10k	RES, 10k ohm, 5%, 0.1W,	0603	CRCW060310K0JNEA	Vishay-Dale
R12	1	16.2k	RES, 16.2k ohm, 1%, 0.1W,	0603	CRCW060316K2FKEA	Vishay-Dale
R11	1	205k	RES, 205k ohm, 1%, 0.1W,	0603	CRCW0603205KFKEA	Vishay-Dale
R21	1	3.3	RES, 3.3 ohm, 5%, 0.25W,	1206	CRCW12063R30JNEA	Vishay-Dale
R7	1	31.6k	RES, 31.6k ohm, 1%, 0.1W,	0603	CRCW060331K6FKEA	Vishay-Dale
R1, R4,	3	330	RES, 330 ohm, 5%, 0.1W,	0603	CRCW0603330RJNEA	Vishay-Dale
R20, R37,	4	34.8k	RES, 34.8k ohm, 1%, 0.1W,	0603	CRCW060334K8FKEA	Vishay-Dale
R22, R23,	5	4.99k	RES, 4.99k ohm, 1%, 0.1W,	0603	CRCW06034K99FKEA	Vishay-Dale
R25, R26,	3	56	RES, 56 ohm, 5%, 0.1W,	0603	CRCW060356R0JNEA	Vishay-Dale
J2	1	2 Pin Header	TERMINAL BLOCK 5.08MM	TERM_BLK, 2pos, 5.08mm	OSTTA024163	On-Shore Technology
J11	1	3 Pin Header	TERMINAL BLOCK 5.08MM	TERM_BLK, 3pos, 5.08mm	OSTTA034163	On-Shore Technology

Notes:

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

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