

Bill of Materials

TI DESIGNS

TIDA-00304 - "Last Gasp" Hold Up Energy Storage Solution

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
C1	1	1uF	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	0805	08055C105KAT2A	AVX
C2, C3, C5, C6	4	1000uF	CAP, AL, 1000uF, 10V, +/-20%, 0.08 ohm, SMD	SMT Radial G	EEE-FK1A102P	Panasonic
C4, C13	2	2.2uF	CAP, CERM, 2.2uF, 16V, +/-10%, X7R, 0805	0805	C0805C225K4RACTU	Kemet
C7	1	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	0603	C1608X5R1E105K080AC	TDK
C8, C9	2	4.7uF	CAP, CERM, 4.7uF, 25V, +/-10%, X7R, 1206	1206	C3216X7R1E475K	TDK
C10	1	330uF	CAP, AL, 330uF, 25V, +/-20%, 0.16 ohm, SMD	HA0	EMZA250ADA331MHA0G	Nippon Chemi-Con
C11	1	330pF	CAP, CERM, 330pF, 100V, +/-5%, X7R, 0603	0603	06031C331JAT2A	AVX
C12	1	1000pF	CAP, CERM, 1000pF, 100V, +/-20%, X7R, 0603	0603	06031C102MAT2A	AVX
C14	1	4.7uF	CAP, CERM, 4.7uF, 10V, +/-10%, X5R, 0805	0805	C0805C475K8PACTU	Kemet
C15	1	0.22uF	CAP, CERM, 0.22uF, 50V, +/-10%, X7R, 0805	0805	C0805C224K5RACTU	Kemet
C16, C17, C29, C30	4	22uF	CAP, CERM, 22uF, 6.3V, +/-20%, X5R, 1206	1206	C3216X5R0J226M	TDK
C18, C23, C24, C28	4	0.1uF	CAP, CERM, 0.1uF, 16V, +80/-20%, Y5V, 0603	0603	C0603C104Z4VACTU	Kemet
C19, C25	2	0.01uF	CAP, CERM, 0.01uF, 100V, +/-10%, X7R, 0805	0805	08051C103KAT2A	AVX
C20	1	1uF	CAP, CERM, 1uF, 6.3V, +80/-20%, Y5V, 0603	0603	C0603C105Z9VACTU	Kemet
C21, C22, C26, C27	4	10uF	CAP, CERM, 10uF, 10V, +/-10%, X5R, 1206	1206	GRM319R61A106KE19D	MuRata
D1	1	40V	Diode, Schottky, 40V, 1A, SMA	SMA	MBRA140T3G	ON Semiconductor
D6	1	Red	LED, Red, SMD	Power TOPLED w/lens	LS E63F-DBFA-1-Z	OSRAM
D7	1	Green	LED, Green, SMD	Power TOPLED w/lens	LT E63C-CADB-35-L-Z	OSRAM
D8	1	20V	Diode, Schottky, 20V, 3A, SMA	SMA	B320A-13-F	Diodes Inc.
D9	1	16V	Diode, TVS, Uni, 16V, 600W, SMB	SMB	SMBJ16A-13-F	Diodes Inc.
J1, J2	2	2x1	Conn Term Block, 2POS, 3.5mm, TH	11x8.5x7.3mm	1751248	Phoenix Contact
J7, J8	2		Terminal Block, 2x1, 5.08mm, TH	10.16x15.2x9mm	282841-2	TE Connectivity
J9	1	1x3	Header, TH, 100mil, 1x3, Gold plated, 230 mil above insulator	PBC03SAAN	PBC03SAAN	Sullins Connector Solutions
L1	1	22uH	Inductor, Shielded Drum Core, Ferrite, 22uH, 1.62A, 0.107 ohm, SMD	DR73	DR73-220-R	Coiltronics
L2, L3	2	2.2uH	Inductor, Shielded, Ferrite, 2.2uH, 8.2A, 0.019 ohm, SMD	SMD 7.1x3.0x6.5mm	SPM6530T-2R2M	TDK
Q1	1	-40V	MOSFET, P-CH, -40V, -12A, DPAK	DPAK	AOD413A	AOS
R1	1	150k	RES, 150k ohm, 1%, 0.125W, 0805	0805	CRCW0805150KFKEA	Vishay-Dale
R2	1	49.9	RES, 49.9 ohm, 1%, 0.125W, 0805	0805	CRCW080549R9FKEA	Vishay-Dale
R3	1	4.99k	RES, 4.99k ohm, 1%, 0.125W, 0805	0805	CRCW08054K99FKEA	Vishay-Dale
R4	1	280k	RES, 280k ohm, 1%, 0.125W, 0805	0805	CRCW0805280KFKEA	Vishay-Dale
R5	1	31.6k	RES, 31.6k ohm, 1%, 0.125W, 0805	0805	CRCW080531K6FKEA	Vishay-Dale
R6, R11	2	73.2k	RES, 73.2k ohm, 1%, 0.1W, 0603	0603	RC0603FR-0773K2L	Yageo America
R7, R10	2	10.0k	RES, 10.0k ohm, 1%, 0.1W, 0603	0603	RC0603FR-0710KL	Yageo America
R8, R9	2	22.1k	RES, 22.1k ohm, 1%, 0.1W, 0603	0603	CRCW060322K1FKEA	Vishay-Dale
R12	1	10K	RES, 280k ohm, 1%, 0.125W, 0805	0805	CRCW0805280KFKEA	Vishay-Dale
R16, R17	2	100k	RES, 100k ohm, 5%, 0.1W, 0603	0603	CRCW0603100KJNEA	Vishay-Dale

R18, R19, R20	3	475k	RES, 475k ohm, 1%, 0.1W, 0603	0603	CRCW0603475KFKEA	Vishay-Dale
R22	1	48.7k	RES, 48.7k ohm, 1%, 0.1W, 0603	0603	CRCW060348K7FKEA	Vishay-Dale
R23	1	47k	RES, 47k ohm, 5%, 0.1W, 0603	0603	CRCW060347K0JNEA	Vishay-Dale
R25	1	16.9k	RES, 16.9k ohm, 1%, 0.1W, 0603	0603	CRCW060316K9FKEA	Vishay-Dale
R26	1	32.4k	RES, 32.4k ohm, 1%, 0.1W, 0603	0603	CRCW060332K4FKEA	Vishay-Dale
R27	1	24.9k	RES, 24.9k ohm, 1%, 0.1W, 0603	0603	CRCW060324K9FKEA	Vishay-Dale
R28	1	16.2k	RES, 16.2k ohm, 1%, 0.1W, 0603	0603	CRCW060316K2FKEA	Vishay-Dale
S2	1		Switch, Push Button, SMD	2.9x2x3.9mm SMD	SKRKAEE010	Alps
SH-J9	1	1x2	Shunt, 100mil, Gold plated, Black	Shunt	969102-0000-DA	3M
TP15, TP16	2	Red	Test Point, TH, Multipurpose, Red	Keystone5010	5010	Keystone
TP17, TP18, TP21, TP22	4	White	Test Point, TH, Multipurpose, White	Keystone5012	5012	Keystone
TP24, TP25	2	SMT	Test Point, SMT, Compact	Testpoint_Keystone_Compact	5016	Keystone
TP26	1	Black	Test Point, TH, Multipurpose, Black	Keystone5011	5011	Keystone
U1	1		1.2A High Voltage Boost Converter in 2x2mm QFN Package, DRV0006A	DRV0006A	TPS61170DRV	Texas Instruments
U2	1		2.7V-18V eFuse with True Reverse Blocking and DevSleep Support for SSDs	RVC0020A	TPS25940LRVC	Texas Instruments
U3	1		4-A OUTPUT STEP DOWN SWITCHER WITH INTEGRATED FET	PWP0014E	TPS54425PWP	Texas Instruments

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