

Variant: 001  
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 TID #: TIDA01512

TIDA01512 RevA Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCBI	1		TIDA-01512	Any	Printed Circuit Board	
2	3P3V_5V_EXT, AVR_EN, AVR_RDY, BVR_EN, BVR_RDY, CSWIN_CSPIN, SMB_ALF#, SMB_CLK, SMB_DAT, VIN1, VRFALLT#	13	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
3	C1, C12	2	1uF	C0603C10529VACTU	Kemet	CAP, CERM, 1 uF, 6.3 V, +80/-20%, Y5V, 0603	0603
4	C2, C8	2	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
5	C3, C4, C9, C10	4	22pF	GRM1885C1H220JA01D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
6	C5, C6	2	0.1uF	EMK107B7104K4-T	Taiyo Yuden	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0603	0603
7	C7, C11	2	1000pF	GCM1885C2A102JA16D	MuRata	CAP, CERM, 1000 pF, 100 V, +/- 5%, COG/NPO, AEC-Q200 Grade 1, 0603	0603
8	C13, C75, C77, C109, C110, C131, C132, C144, C155	9	0.1uF	C0603C104J4RACTU	Kemet	CAP, CERM, 0.1 uF, 16 V, +/- 5%, X7R, 0603	0603
9	C14, C15, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73	46	22uF	JMK212BJ226MD-T	Taiyo Yuden	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X5R, 0805	0805
10	C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29	14	47uF	JMK212BJ476MG-T	Taiyo Yuden	CAP, CERM, 47 uF, 6.3 V, +/- 20%, X5R, 0805	0805
11	C74, C76, C85	3	1uF	C0603C105K3RACTU	Kemet	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
12	C78, C79, C84	3	1uF	EMK107B7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603
13	C80, C81, C82	3	4.7uF	GRM188R1A475ME15	MuRata	CAP, CERM, 4.7 uF, 10 V, +/- 20%, X5R, 0603	0603
14	C83	1	0.01uF	GRM188R7D103K401D	MuRata	CAP, CERM, 0.01 uF, 6.3 V, +/- 10%, X7R, 0603	0603
15	C87, C88, C91, C92, C93, C94, C96, C97, C98, C99, C115, C114, C115, C116, C118, C119, C120, C121, C136, C137, C138, C139, C147, C148, C149, C150	26	22uF	GRM31CR61C226ME15L	MuRata	CAP, CERM, 22 uF, 16 V, +/- 20%, X5R, 1206	1206
16	C89, C90	2	330uF	875115360004	Wurth Elektronik	CAP, Aluminum Polymer, 330 uF, 16 V, +/- 20%, 0.02 ohm, D10xL8.7mm SMD	D10xL8.7mm
17	C95, C100, C117, C122, C140, C151	6	4700pF	C0603C47K5RRACTU	Kemet	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, 0603	0603
18	C101, C102, C123, C124, C135, C146	6	0.1uF	GCM155R71C104KA55D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
19	C103, C104, C125, C126, C141, C152	6	2.2uF	C0603C225K9PACTU	Kemet	CAP, CERM, 2.2 uF, 6.3 V, +/- 10%, X5R, 0603	0603
20	C105, C106, C127, C128, C142, C153	6	560uF	EEF-GXD561L	Panasonic	CAP, Aluminum Polymer, 560 uF, 2 V, +/- 20%, 0.003 ohm, SMD, 7.3x1.9x4.3mm SMD	SMD_7.3x1.9x4.3mm
21	D1, D2, D3, D4	4	30V	MBR0530T1G	ON Semiconductor	Diode, Schottky, 30 V, 0.5 A, SOD-123	SOD-123
22	H9, H10, H11, H12	4		SJ-9303 (CLEAR)	3M	Bump, Hemisphere, 0.44 X 0.20, Clear	Transparent Bump
23	J1	1		5103308-1	TE Connectivity	Header (shrouded), 100mil, 5x2, Gold, TH	5x2 Shrouded header
24	J2, J3, J4, J5, J6, J8	6		TSW-102-07-G-S	Samtec	Header, TH, 100mil, 2x1, Gold plated, 230 mil above insulator	2x1 Header
25	J7	1		1727010	Phoenix Contact	Conn Term Block, 2POS, 3.81mm, TH	2POS Terminal Block
26	L1	1	55nH	HCB85-550X	Delta Electronics Inc.	Inductor, 7.55 nH, 30 A, 0.0002 ohm, SMD	5.5x5.7mm
27	L2, L3, L4, L5	4	150nH	PA4390 151HLT	Pulse Engineering	Inductor, 150 nH, 68 A, 0.0002035 ohm, SMD	10x7x10mm
28	L6, L7	2	300nH	PA2607 301NLT	Pulse Engineering	Inductor, Ferrite, 300 nH, 32 A, 0.00031 ohm, SMD	10.31x7.65mm
29	LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650" x 0.200" W
30	PGND1, PGND2, PGND3, PGND4	4	Black	5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
31	Q1, Q2, Q3, Q4	4		CSD17570Q5B	Texas Instruments	MOSFET, N-CH, 30 V, 51 A, DNK0008A (VSON-CLIP-8)	DNK0008A
32	R1, R2, R4, R5, R22, R23	6	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
33	R7	1	475k	CRCW0603475KFKEA	Vishay-Dale	RES, 475 k, 1%, 0.1 W, 0603	0603
34	R8	1	154k	CRCW0603154KFKEA	Vishay-Dale	RES, 154 k, 1%, 0.1 W, 0603	0603
35	R9, R10, R11, R15, R16, R58	6	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
36	R12, R13, R14, R17	4	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
37	R26, R27, R29, R30	4	301	CRCW0603301RFKEA	Vishay-Dale	RES, 301, 1%, 0.1 W, 0603	0603
38	R32, R33, R34, R35, R36, R37, R44, R45, R46	9	0.1	ERJ-8BWF100V	Panasonic	RES, 0.1, 1%, 0.5 W, 1206	1206
39	R59, R60, R60, R61, R66, R67, R70, R71, R72, R73, R78, R79, R82, R83, R86, R88, R89, R92	18	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
40	R62, R63, R74, R75, R84, R90 R77	6	2.20	ERJ-3RQF2R2V	Panasonic	RES, 2.20, 1%, 0.1 W, 0603	0603
41	R64, R65, R76, R77	4	110k	CRCW0402110KFKEA	Vishay-Dale	RES, 110 k, 1%, 0.063 W, 0402	0402
42	R86, R91	2	162k	CRCW0402162KFKEA	Vishay-Dale	RES, 162 k, 1%, 0.063 W, 0402	0402
43	S1, S2	2		GT11MC8E	CAK Components	Switch, SPDT, On-On, 1 Pos, 0.4VA, 20V, TH	7.01x4.5mm
44	SR-1	1	0.0003	WSL4026L3000FEB	Vishay-Dale	RES, 0.0003, 1%, 3 W, AEC-Q200 Grade 0, 10.1x6.65mm	10.1x6.65mm
45	T1, T2, T3, T4, T5, T7, T8	7		CB35-36-CY	Panduit	Terminal 50A Lug	CB35-36-CY
46	TP1, TP2, TP3, TP4	4		5007	Keystone	Test Point, Compact, White, TH	White Compact Testpoint
47	U1	1		TPS3681RSBR	Texas Instruments	Dual-Channel D-CAP+ Step-Down Multiphase Controller with Non-Volatile Memory and PMBus Interface, RS80040E (WQFN-40)	RSB0040E
48	U2, U3	2		UCC27524AD	Texas Instruments	Dual, 5A, High-Speed Low-Side Power MOSFET Driver, with Negative Input Voltage Ability, D0008A (SOIC-8)	D0008A
49	U4	1		TPS73733QDRBRQ1	Texas Instruments	Single Output Automotive LDO, 1 A, Fixed 3.3 V Output, 2.2 to 5.5 V Input, with Reverse Current Protection, 8-pin SON (DRB), -40 to 125 degC, Green (RoHS & no Sb/Br)	DRB0008A
50	U5, U6, U7, U8, U9, U10	6		CSD9549005MC	Texas Instruments	Synchronous Buck NexFET Power Stage, DMC0012A (VSON-CLIP-12)	DMC0012A
51	C86	0	330uF	875115360004	Wurth Elektronik	CAP, Aluminum Polymer, 330 uF, 16 V, +/- 20%, 0.02 ohm, D10xL8.7mm SMD	D10xL8.7mm
52	C107, C108, C129, C130, C143, C154	0	1000pF	GRM1555C1H102JA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, COG/NPO, 0402	0402
53	C111, C112, C133, C134, C145, C156	0	0.01uF	C0805C103K5RACTU	Kemet	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0805	0805
54	R3, R6	0	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
55	R18, R19, R20, R21, R24, R25	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
56	R38, R39, R40, R41, R42, R43, R47, R48, R49, R50, R51, R52, R53, R54, R55	0	0.1	ERJ-8BWF100V	Panasonic	RES, 0.1, 1%, 0.5 W, 1206	1206
57	R57	0	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
58	R68, R69, R80, R81, R87, R93	0	1.00	ERJ-3RQF1R0V	Panasonic	RES, 1.00, 1%, 0.125 W, 0805	0805

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