

TIDA-020004 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB1	1		TIDA-020004	Any	Printed Circuit Board	
A1	1		N/A	Used in BOM report		eg: 0603, used in PnP report
C1	1	0.47uF	JMK105B7474KVHF	Taiyo Yuden	CAP, CERM, 0.47 µF, 6.3 V, +/- 10%, X7R, 0402	0402
C2	1	10uF	EEE-FK1H100UR	Panasonic	CAP, AL, 10 µF, 50 V, +/- 20%, 1.52 ohm, AEC-Q200 Grade 2, SMD	SMT Radial C
C3, C6	2	10uF	GRM32ER71H106MA12	MuRata	CAP, CERM, 10 µF, 50 V, +/- 20%, X7R, 1210	1210
C4, C7	2	0.1uF	C1210C104K5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 1210	1210
C5, C8	2	0.01uF	C0805C103K5RACTU	Kemet	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0805	0805
C9, C15, C18, C24, C31, C59, C60, C63, C64, C69, C77, C79, C81	13	0.1uF	0402YC104KAT2A	AVX	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402
C10, C11, C12	3	22uF	C3225X7R1C226K250AC	TDK	CAP, CERM, 22 µF, 16 V, +/- 10%, X7R, 1210	1210
C13	1	4.7uF	CGA4J1X7R1E475K125AC	TDK	CAP, CERM, 4.7 µF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C14, C17, C23, C33, C45, C47, C78, C80	8	1.0µF	CL05B105KQ5NQNC	Samsung Electro-Mechanics	CAP CER 1UF 6.3V 10% X7R 0402	0402 (1005 Metric)
C16, C22, C30, C34, C36, C38, C39, C41, C49, C76	10	10uF	CL21B106KOQNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 µF, 16 V, +/- 10%, X7R, 0805	0805
C19, C20, C21, C26, C27	5	22uF	GCM21BD70J226ME36L	MuRata	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X7T, AEC-Q200 Grade 1, 0805	0805
C25	1	10uF	GCM21BR71A106KE22L	MuRata	CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C28, C29	2	0.01uF	GRM155R71C103KA01D	MuRata	CAP, CERM, 0.01uF, 16V, +/-10%, X7R, 0402	0402
C32	1	22uF	GRM21BZ71A226ME15L	MuRata	CAP, CERM, 22 uF, 10 V, +/- 20%, X7R, 0805	0805
C35, C37, C40, C42, C43, C44, C50, C51, C54, C55, C57, C58, C61	13	0.22uF	GCM155R71C224KE02D	MuRata	CAP, CERM, 0.22 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C46, C48, C72, C74	4	4.7pF	GJM1555C1H4R7BB01D	MuRata	CAP, CERM, 4.7 pF, 50 V, +/- 2%, C0G/NP0, 0402	0402
C52	1	0.22uF	GCM155R71C224KE02	MuRata	CAP, CERM, 0.22 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C53, C56	2	2.2uF	GCM188R70J225KE22D	MuRata	CAP, CERM, 2.2 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C62	1	2200pF	UMK105B7222KV-F	Taiyo Yuden	Cap, Cer-X7R, 2200pF, 50V, 10%, 0402	0402 (1005 Metric)
C65	1	0.1uF	C1005X5R1A104K050BA	TDK	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X5R, 0402	0402
C66, C68	2	1uF	GRM155R6YA105ME11D	MuRata	CAP, CERM, 1 µF, 35 V, +/- 20%, X5R, 0402	0402
C67, C71	2	4700pF	GCM188R71H472KA37D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C70	1	4.7uF	GRM32ER71H475KA88L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1210	1210
C73	1	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
C75	1	0.33uF	C0603C334K4RACTU	Kemet	CAP, CERM, 0.33 uF, 16 V, +/- 10%, X7R, 0603	0603
D1	1	40V	BAT165E6327HTSA1	Infineon Technologies	Diode, Schottky, 40 V, 0.75 A, AEC-Q101, SOD-323	SOD-323
D2	1	26V	SMBJ26A-13-F	Diodes Inc.	Diode, TVS, Uni, 26 V, 600 W, SMB	SMB
D3	1	Red	SML-P12UTT86	Rohm	LED, Red, SMD	LED, 1x.2x.6mm
D4	1	Green	SML-P12PTT86	Rohm	LED, Green, SMD	LED, 1x.2x.6mm
D5	1	14V	SMBJ14A-13-F	Diodes Inc.	Diode, TVS, Uni, 14 V, 600 W, SMB	SMB
D6	0	16V	DDZ16BQ-7	Diodes Inc.	Diode, Zener, 16 V, 500 mW, AEC-Q101, SOD-123	SOD-123

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1, J5, J7	3		1727010	Phoenix Contact	Conn Term Block, 2POS, 3.81mm, TH	2POS Terminal Block
J3	1		TSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	3x1 Header
J4	1		TSW-105-09-G-D	Samtec	Header, 2.54mm, 5x2, Gold, TH	Header, 2.54mm, 5x2, TH
J6	1		QSH-030-01-L-D-A	Samtec	Receptacle, 0.5 mm, 30x2, Gold, TH	Receptacle, 0.5 mm, 30x2, TH
L2, L3	2	470nH	DFE252012PD-R47M	MuRata Toko	Inductor, Shielded, 470 nH, 4.7 A, 0.021 ohm, SMD	1008
L4	1	1uH	DFE252012PD-1R0M	MuRata Toko	Inductor, Shielded, 1 uH, 3.8 A, 0.035 ohm, AEC-Q200 Grade 1, SMD	1008
L5, L7, L8, L10	4	120 ohm	BLM18KG121TH1D	MuRata	Ferrite Bead, 120 ohm @ 100 MHz, 1.9 A, 0603	0603
L100	1	2.2uH	XAL5030-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 9.2 A, 0.01 ohm, SMD	5.3x31.x5.5mm
R1, R3	2	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10k ohm, 5%, 0.063W, 0402	0402
R2	1	2.2k	CRCW04022K20JNED	Vishay-Dale	RES, 2.2 k, 5%, 0.063 W, 0402	0402
R4	1	220	CRCW0402220RJNED	Vishay-Dale	RES, 220, 5%, 0.063 W, 0402	0402
R6, R7, R8, R9, R15, R16, R18, R20, R21, R24, R25, R27, R33, R34, R35, R36, R38, R39, R40, R57, R59, R60, R61, R62, R63, R64, R65, R66, R67, R73, R76, R77, R78, R79, R82, R83, R85	37	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0 ohm, 5%, 0.063W, 0402	0402
R10	1	12.1k	CRCW040212K1FKED	Vishay-Dale	RES, 12.1 k, 1%, 0.063 W, 0402	0402
R11, R12	2	3.3k	CRCW04023K30JNED	Vishay-Dale	RES, 3.3 k, 5%, 0.063 W, 0402	0402
R13, R14, R23, R26, R28, R31, R32, R37, R41, R48, R49, R50, R58, R74, R75, R80, R81, R84	18	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
R17	1	48.7k	CRCW040248K7FKED	Vishay-Dale	RES, 48.7 k, 1%, 0.063 W, 0402	0402
R19	1	1.0k	RC0603JR-071KL	Yageo America	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R22	1	11.0k	CRCW040211K0FKED	Vishay-Dale	RES, 11.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R29	1	4.7k	CRCW04024K70JNED	Vishay-Dale	RES, 4.7 k, 5%, 0.063 W, 0402	0402
R42, R44, R45, R47	4	4.7k	CRCW06034K70JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.1 W, 0603	0603
R51	1	47.5k	CRCW040247K5FKED	Vishay-Dale	RES, 47.5 k, 1%, 0.063 W, 0402	0402
R52, R55, R69, R71	4	61.9	CRCW040261R9FKED	Vishay-Dale	RES, 61.9, 1%, 0.063 W, 0402	0402
R53, R54, R56	3	33.2	CRCW040233R2FKED	Vishay-Dale	RES, 33.2, 1%, 0.063 W, 0402	0402
R68	1	3.0k	CRCW04023K00JNED	Vishay-Dale	RES, 3.0 k, 5%, 0.063 W, 0402	0402
R70	1	33k	CRCW040233K0JNED	Vishay-Dale	RES, 33 k, 5%, 0.063 W, 0402	0402
S3, S4	2		SKRKAEE010	Alps	Switch, Tactile, 12v, 50mA, Vertical, SMD	2.9x2x3.9mm SMD
TP1	1		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		LM536253QRNLRQ1	Texas Instruments	2.5/3.5A, 36 V Synchronous, 2.1MHz, Automotive Step Down DC-DC Converter, RNL0022A (VQFN-HR-22)	RNL0022A
U2	1		LP87702DRHBRQ1	Texas Instruments	Boost and Dual Buck Regulators With Diagnostic Functions, RHB0032N (VQFN-32)	RHB0032N

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U3	1		TPS7A5201QRGRRQ1	Texas Instruments	TPS7A5201RTKT, RTK0020C (VQFNP-20)	RTK0020C
U4	1		X1642BIGABL	Texas Instruments	Single-Chip 77- and 79-GHz FMCW Radar Sensor, ABL0161B (FCBGA-161)	ABL0161B
U5	1		TCAN1042GVDRQ1	Texas Instruments	Automotive Fault Protected CAN Transceiver With Flexible Data-Rate, D0008A (SOIC-8)	D0008A
U6	1		MX25R1635FZUIH0	ULTRA LOW POWER, 16M-B	ULTRA LOW POWER, 16M-BIT [x 1/x 2/x 4] CMOS MXSMIO (SERIAL MULTI I/O) FLASH MEMORY, SON-8	SON-8
U7	1		TCAN4550RGYRQ1	Texas Instruments	CAN-FD Controller with Integrated Transceiver, RGY0020A (VQFN-20)	RGY0020A
U8	0					
U10	1		SN74LVC1G14MDBVREP	Texas Instruments	Enhanced Product Single Schmitt-Trigger Inverter, DBV0005A, LARGE T&R	DBV0005A
Y3, Y4	2		CX3225SA40000D0PTWCC	Kyocera	Crystal, 40 MHz, 8pF, SMD	3.2x2.5mm
FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
J2	0		TSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	3x1 Header

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