

### TIDA-01507 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB1	1		TIDA-01507	Any	Printed Circuit Board	
C100, C400, C402, C404	4	10uF	GCM21BR71A106KE22L	MuRata	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805
C101, C102, C103, C104, C106, C109, C110, C111, C123, C202, C203, C204, C205, C206, C207, C300	16	1uF	GCM188R71E105KA64D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C105, C107, C112, C113, C114, C115, C124, C200, C208, C217, C301, C303, C305, C310, C311, C401, C403, C405, C406, C407, C500, C501, C502, C503, C605, C608, C612, C613, C614, C617, C619, C622	32	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C108, C304, C306, C611	4	10uF	GCM32EC7YA106KA03K	MuRata	CAP, CERM, 10 uF, 35 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
C116, C117, C119	3	1000pF	GRM188R71C102KA01D	MuRata	CAP, CERM, 1000 pF, 16 V, +/- 10%, X7R, 0603	0603
C118, C201, C209, C210, C211, C212, C213, C214	8	2.2uF	GRM188Z71C225KE43	MuRata	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0603	0603
C120, C121, C122	3	2200pF	GRM188R71C222KA01D	MuRata	CAP, CERM, 2200 pF, 16 V, +/- 10%, X7R, 0603	0603
C215, C216, C319, C320	4	15pF	GCM1885C1H150JA16D	MuRata	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
C302, C315, C604, C607, C618, C623	6	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603

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C307, C308, C309, C312, C313, C314, C316, C317, C318	9	68pF	GCM1885C1H680JA16D	MuRata	CAP, CERM, 68 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
C409	1	4700pF	GCM188R71H472KA37D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C600, C601, C602, C603	4	220uF	EEE-FC1H221P	Panasonic	CAP, AL, 220 uF, 50 V, +/- 20%, 0.3 ohm, SMD	SMT Radial G
C606, C609	2	1uF	GRM21BR71H105KA12L	MuRata	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0805	0805
C610, C620, C621	3	22uF	GCM32ER71C226KE19L	MuRata	CAP, CERM, 22 uF, 16 V, +/- 10%, X7R, 1210	1210
C615, C616, C624	3	4.7uF	GRM188Z71C475KE21D	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, 0603	0603
D100, D200	2	Super Red	150060SS75000	Würth Elektronik	LED, Super Red, SMD	LED_0603
D101	1	30V	BAT54CDW-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-363	SOT-363
D201	1	Yellow	150060YS75000	Würth Elektronik	LED, Yellow, SMD	LED_0603
D202	1	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603
D300	1	60V	SS16T3G	ON Semiconductor	Diode, Schottky, 60 V, 1 A, SMA	SMA
D301	1	40V	BAS40DW-04-TP	Micro Commercial Component	Diode, Schottky, 40 V, 0.2 A, SOT-363	SOT-363
D400, D401	2	20V	MBR0520LT1G	ON Semiconductor	Diode, Schottky, 20 V, 0.5 A, SOD-123	SOD-123
D402	1	24V	NUP2105LT1G	ON Semiconductor	Diode, TVS, Bi, 24 V, SOT-23	SOT-23
D600	1	90V	CD0603-S0180	Bourns	Diode, Switching, 90 V, 0.1 A, 0603 Diode	0603 Diode
D601	1	40V	MBRS340T3G	ON Semiconductor	Diode, Schottky, 40 V, 3 A, SMC	SMC
FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
H1, H2	2		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
J1	1		1981568-1	TE Connectivity	Connector, Receptacle, Micro-USB Type B, R/A, Bottom Mount SMT	MICRO USB CONN, R/A
J2, J7	2		1-1478035-0	TE Connectivity	Connector, BNC, Jack, 50 ohm, R/A, TH	Connector, BNC, Jack, 50 ohm, R/A, TH
J3	1		61300411121	Würth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
J4	1		1725698	Phoenix Contact	Terminal Block, 6x1, 2.54mm, TH	Terminal Block, 6x1, 2.54mm, TH
J5	1		1759020	Phoenix Contact	Header (Shrouded), 5.08mm, 3x1, Tin, R/A, TH	Header (Shrouded), 5.08mm, 3x1, R/A, TH
J6	1		5205734-7	TE Connectivity	Receptacle, D-SUB-9, 2.74mm, Gold, TH	Receptacle, 2.74mm, 9 Pos, TH
J8	1		1759017	Phoenix Contact	Header (Shrouded), 5.08mm, 2x1, Tin, R/A, TH	Header (Shrouded), 5.08mm, 2x1, R/A, TH
J200	1		TSM-107-01-L-DV	Samtec	Header, 2.54mm, 7x2, Gold, SMT	Header, 2.54mm, 7x2, SMT
L300	1	56uH	MSS7341T-563MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 56 uH, 0.94 A, 0.17 ohm, AEC-Q200 Grade 1, SMD	MSS7341
L600	1	2.2uH	XAL1010-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 32 A, 0.00255 ohm, SMD	Inductor, 11.3x10x10mm
L601	1	33uH	MSS1246T-333MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 33 uH, 2.6 A, 0.08 ohm, SMD	MSS1246T

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
Q100, Q101, Q102, Q103, Q104, Q105	6	40V	SQJ858AEP-T1-GE3	Vishay-Siliconix	MOSFET, N-CH, 40 V, 58 A, PowerPAK_SO-8L	PowerPAK_SO-8L
Q600	1	65 V	BC846B,215	NXP Semiconductor	Transistor, NPN, 65 V, 0.1 A, SOT-23	SOT-23
Q601	1	40V	SQJ422EP-T1-GE3	Vishay-Siliconix	MOSFET, N-CH, 40 V, 75 A, PowerPAK_SO-8L	PowerPAK_SO-8L
Q602	1	55V	BUK92150-55A,118	NXP Semiconductor	MOSFET, N-CH, 55 V, 11 A, AEC-Q101, DPAK	DPAK
R1	1	10kohm	3310Y-001-103L	Bourns	Potentiometer, 10k ohm, 0.25W, TH	9.53x9.53mm
R100, R105, R501, R503, R505, R507, R509, R510, R512, R514, R516, R518, R520, R522, R600, R601	16	10.0k	RC0603FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R101, R102, R103	3	0.007	PMR100HZPFU7L00	Rohm	RES, 0.007, 1%, 2 W, 2512	2512
R104	1	100	RC0603FR-07100RL	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
R106, R107, R108, R109	4	25.5k	RC0603FR-0725K5L	Yageo America	RES, 25.5 k, 1%, 0.1 W, 0603	0603
R110	1	220	RC0603FR-07220RL	Yageo America	RES, 220, 1%, 0.1 W, 0603	0603
R111, R112, R113, R114	4	4.99k	RC0603FR-074K99L	Yageo America	RES, 4.99 k, 1%, 0.1 W, 0603	0603
R115, R116, R117	3	56.0	RC0603FR-0756RL	Yageo America	RES, 56.0, 1%, 0.1 W, 0603	0603
R200, R201, R202, R203, R204, R205, R206, R210, R213, R214, R215, R216, R217, R218, R219	15	4.70k	RC0603FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.1 W, 0603	0603
R208, R300	2	10.0	RC0603FR-0710RL	Yageo America	RES, 10.0, 1%, 0.1 W, 0603	0603
R209	1	49.9	RC0603FR-0749R9L	Yageo America	RES, 49.9, 1%, 0.1 W, 0603	0603
R211, R212	2	1.50k	RC0603FR-071K5L	Yageo America	RES, 1.50 k, 1%, 0.1 W, 0603	0603
R220	1	680	RC0603FR-07680RL	Yageo America	RES, 680, 1%, 0.1 W, 0603	0603
R301, R302, R602	3	68.0k	RC0603FR-0768KL	Yageo America	RES, 68.0 k, 1%, 0.1 W, 0603	0603
R304, R314, R400, R403, R404, R406	6	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
R305, R311	2	51.0k	RC0603FR-0751KL	Yageo America	RES, 51.0 k, 1%, 0.1 W, 0603	0603
R306, R307, R308, R309, R312, R313, R315, R316	8	27.0k	RC0603FR-0727KL	Yageo America	RES, 27.0 k, 1%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R310, R317, R500, R502, R504, R506, R508, R511, R513, R515, R517, R519, R521, R523, R524, R605, R607, R608	18	20.0k	RC0603FR-0720KL	Yageo America	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R401, R402	2	60.4	ERJ-8ENF60R4V	Panasonic	RES, 60.4, 1%, 0.25 W, 1206	1206
R603	1	101	RT0603BRD07101RL	Yageo America	RES, 101, 0.1%, 0.1 W, 0603	0603
R604	1	80.6	RT0603BRD0780R6L	Yageo America	RES, 80.6, 0.1%, 0.1 W, 0603	0603
R606	1	0.15	ERJ-3RSFR15V	Panasonic	RES, 0.15, 1%, 0.1 W, 0603	0603
R609, R610	2	3.32k	RT0603BRD073K32L	Yageo America	RES, 3.32 k, 0.1%, 0.1 W, 0603	0603
S200	1		218-4LPST	CTS Electrocomponents	Switch, Slide, SPST 4 poles, SMT	SW, SMT Half Pitch 4SPST, 5.8x2.7x6.25 mm
T400	1	475uH	760390015	Würth Elektronik	Transformer, 475 uH, SMT	7.14x6.73mm
TP600, TP601	2		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Minature
U100	1		DRV83053QPHPRQ1	Texas Instruments	Three Phase Automotive Gate Driver with Three Integrated Current Shunt Amplifiers and Voltage Regulator, PHP0048G (HTQFP-48)	PHP0048G
U101	1		LMT86QDCKRQ1	Texas Instruments	Automotive Grade, 2.2V-Capable, 10 uA Analog Output Temperature Sensor, DCK0005A (SOT-SC70-5)	DCK0005A
U200	1		TMS320F28069MPZT	Texas Instruments	Piccolo Microcontroller with InstaSPIN-MOTION, LQFP-100, PZ0100A (LQFP-100)	PZ0100A
U201	1		LM4040A20IDBZR	Texas Instruments	Precision Micropower Shunt Voltage Reference, 0.1% accuracy, 2.048 V, 15 ppm / degC, 15 mA, -40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U300	1		PGA411QPAPRQ1	Texas Instruments	PGA411PAP, PAP0064M (HTQFP-64)	PAP0064M
U301	1		TPD4E001QDBVRQ1	Texas Instruments	Automotive Low-Capacitance 4-Channel +/-15-kV ESD Protection Array for High-Speed Data Interfaces, DBV0006A (SOT-23-6)	DBV0006A
U400	1		TPS76350QDBVRQ1	Texas Instruments	Single Output Automotive LDO, 150 mA, Fixed 5 V Output, 2.7 to 10 V Input, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
U401	1		SN6501QDBVRQ1	Texas Instruments	Automotive Low-Noise 350 mA, 410 kHz Transformer Driver, DBV0005A (SOT-23-5)	DBV0005A
U402	1		TCAN1042HGVDQ1	Texas Instruments	Automotive Fault Protected CAN Transceiver With Flexible Data-Rate, D0008A (SOIC-8)	D0008A
U403	1		ISO7731FQDWRQ1	Texas Instruments	High Speed, Robust EMC Reinforced Triple-Channel Digital Isolator, DW0016B (SOIC-16)	DW0016B
U500	1		74ACT16244DL	Texas Instruments	16-Bit Buffers/Line Drivers With 3-State Outputs, DL0048A, TUBE	DL0048A
U600	1		TPS65381AQDAPRQ1	Texas Instruments	Multi-Rail Power Supply for Microcontrollers in Safety Applications, DAP0032B (TSSOP-32)	DAP0032B
Y200, Y300	2		NX3225GA-20MHZ-STD-CRA-1	NDK	Crystal, 20.000 MHz, 8pF, SMD	3.2x0.75x2.5mm
C408, C410	0	15pF	GCM1885C1H150JA16D	MuRata	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
L400	0	100uH	ACT45B-101-2P-TL003	TDK	Inductor, Ferrite, 100 uH, 0.15 A, 2 ohm, SMD	SMD, 4-Leads, Body 4.7 x 3.7 mm
R2, R3	0	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
R207	0	4.70k	RC0603FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.1 W, 0603	0603
R303	0	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
R405	0	20.0k	RC0603FR-0720KL	Yageo America	RES, 20.0 k, 1%, 0.1 W, 0603	0603

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