

TIDA-01639 REV E2 Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package/Reference
1	C1	1	0.1uF	885012105010	Wurth Elektronik	CAP. CERM. 0.1 uF, 10 V, +/- 20%, XSR, 0402	0402
2	C3, C5, C7, C9	4	4.7uF	C25B3B1X81A479K055AC	TDK	CAP. CERM. 4.7 uF, 10 V, +/- 10%, XSR, 0603	0603
3	C4, C6, C8, C10, C11, C12, C79	7	0.1uF	C2503C1042VACTU	Kemet	CAP. CERM. 0.1 uF, 25 V, +/- 10%, XSR, 0603	0603
4	C13, C14	2	18uF	C1060C201H18U000BA	TDK	CAP. CERM. 18 uF, 63 V, +/- 10%, C060NPS, 0402	0402
5	C16, C17	2	120pF	C2503C120J5GACTU	Kemet	CAP. CERM. 120 pF, 50 V, +/- 5%, C050NPS, 0603	0603
6	C18	1	1000pF	885012205061	Wurth Elektronik	CAP. CERM. 1000 pF, 50 V, +/- 10%, XSR, 0402	0402
7	C19	1	2.2uF	CGA0603V2A22K25X0AB	TDK	CAP. CERM. 2.2 uF, 100 V, +/- 10%, XSR, AEC-Q200 Grade 1,	
8	C20	1	1uF	C16030RTE100K000AB	TDK	CAP. CERM. 1 uF, 25 V, +/- 10%, XSR, 0603	0603
9	C21, C22, C23 C24, C25, C26 C27, C28, C29, C30	10	0.1uF	C16030RTE104K000AA	TDK	CAP. CERM. 0.1 uF, 25 V, +/- 10%, XSR, 0603	0603
10	C31, C34, C57	3	10uF	C20120R1A10MM25AC	TDK	CAP. CERM. 10 uF, 10 V, +/- 20%, XSR, 0805	0805
11	C33, C36, C45	6	0.1uF	96035C048A22A	AVX	CAP. CERM. 0.1 uF, 50 V, +/- 10%, XSR, AEC-Q200 Grade 1, 0603	0603
12	C48, C58, C62	3	2.2uF	GRM18BC7E220KE1TD	MuRata	CAP. CERM. 2.2 uF, 25 V, +/- 10%, XSR, 0603	0603
13	C54, C47, C80	3	2.2uF	GRM18BC7E220KE1TD	MuRata	CAP. CERM. 2.2 uF, 25 V, +/- 10%, XSR, 0603	0603
14	C56, C48, C81	3	5600pF	GRM18BR7E560KA0TD	MuRata	CAP. CERM. 5600 pF, 25 V, +/- 10%, XSR, 0603	0603
15	C37, C41, C55, C54, C53, C58, C70, C71, C72, C73, C74	11	0.1uF	C0603C104R3RACTU	Kemet	CAP. CERM. 0.1 uF, 25 V, +/- 10%, XSR, 0605	0605
16	C38, C51, C54	3	2.2uF	EMK21287225KG-T	Taiyo Yuden	CAP. CERM. 2.2 uF, 16 V, +/- 10%, XSR, 0805	0805
17	C39, C52, C65	3	10uF	EMK21287100KG-T	Taiyo Yuden	CAP. CERM. 10 uF, 16 V, +/- 10%, XSR, 0805	0805
18	C40, C53, C66	3	0.47uF	ECQ-E647K0F	Panasonic	CAP. Film, 0.47 uF, 630 V, +/- 10%, TH	Radial 25.7x8.4x19.7
19	C42, C55, C59	3	4.7uF	LMK21287100KG-T	Taiyo Yuden	CAP. CERM. 4.7 uF, 10 V, +/- 10%, XSR, 0805	0805
19	C43, C56, C67	3	2200uF	ECA-1AM222	Panasonic	CAP. AL, 2200 uF, 10 V, +/- 20%, TH	TH, 2-Leads, Dia 10mm, Lead Spacing 5mm
20	C76	1	0.15uF	GRM18BR1A154KA0TD	MuRata	CAP. CERM. 0.15 uF, 10 V, +/- 10%, XSR, 0603	0603
21	C78	1	0.022uF	C2503C022G3RACTU	Kemet	CAP. CERM. 0.022 uF, 50 V, +/- 10%, XSR, 0603	0603
22	D1, D5	2	Red	SLR-3-362V2	Rohm	LED, Red, TH	0.3x3.6x8.35mm
23	D2, D3, D4	3	Yellow	SLR-342V3-3F	Rohm	LED, Yellow, TH	0.3x3.6x8.35mm
24	D6, D7	2	75V	1M1480VT	Fairchild Semiconductor	Diode, Switching, 75 V, 0.3 A, SOD-523F	SOD-523F
25	D8, D9, D12	6	1uF	PT07EGALUDQRYR	Texas Instruments	1-Channel ESD Protection Diode With Low Dynamic Resistance for HDMI 2.0 and USB 3.0, DPY0002A (N150N-2)	DPY0002A
26	D10, D14, D18	3	30V	SD1088W-T-F	Siodes Inc.	Diode, Schottky, 30 V, 0.3 A, SOD-123	SOD-123
27	D11, D15, D19	6	6.2V	BCY55-60V-115	Neogama	Diode, Zener, 6.2 V, 500 mW, DO-213AC	DO-213AC
28	H1, H2, H3, H4	4		RM3X6MM Z701	APM HEXSEAL	MACHINE SCREW PAN PHILLIPS M3	
29	H1, hole, H2, hole, H3, hole, H4, hole	4		3MM HOLE	Any	5 mm PCB Hole	5mm PCB Hole
30	H, JAK, H, JAK1, H, JAK2, H, JAK3, H, JB1, H, JB2, H, JB3, H, JC1, H, JC2, H, JC3	10		3.5 MM HOLE	Any	3.5 mm PCB Hole	3.5mm PCB Hole
31	J1, J7, J8, J9, J10, J11, J14, J16, J19, J21, J24, J26, J29, J30, J31	15		961102-6404-AR	3M	Header, 2.54mm, 2x1, TH	Header, 2.54mm, 2x1, TH
32	J2, J3, J4, J12, J28, J34	6		91300411121	Wurth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
33	J5	1		GRP8052VNVN-RC	Sullins Connector Solutions	Header, 50mil, 5x2, Gold, TH	Header, 5x2, 50mil
34	J13, J18, J23	3		ED1202DS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
35	J15, J20, J25	3		ED1203DS	On-Shore Technology	Terminal Block, 5.08 mm, 3x1, Brass, TH	3x1 5.08 mm Terminal Block
36	J17, J22, J27, J28, J37	5		PBC035AAN	Sullins Connector Solutions	Header, 100mil, 3x1, Gold, TH	PBC035AAN
37	L1	1	4.7uH	LQH40MCN4R7M02L	MuRata	Inductor, Wirewound, Ferrite, 4.7 uH, 0.3 A, 1.04 ohm, SMD	2.0x0.65x1.6mm
38	L2, L3, L4, L5, R27, R42, R57	7	0	RC0605JR-070RL	Yageo America	RES, 0, 5%, 0.125 W, 0605	0605
39	UBL1	1		1HT-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 inch
40	UCD1	1		FH-1153P	Adkom Elektronik	160 Segment LCD Display, TH	63x30.18mm
41	R1	1	91.0k	RG2012P-913-B-T5	Susumu Co Ltd	RES, 91.0 k, 0.1%, 0.125 W, 0605	0605
42	R2, R3, R5, R11, R12, R63	6	100k	CR060505100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.125 W, 0605	0605
43	R4	1	10	RC0605JR-0710RL	Yageo America	RES, 10, 5%, 0.125 W, 0605	0605
44	R6, R7, R8, R5, R10	5	100	RC0603FR-07100RL	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
45	R13	1	75k	CR06050575KJNEA	Vishay-Dale	RES, 75 k, 5%, 0.125 W, 0605	0605
46	R15	1	47.0k	CR0603FR-0747RL	Yageo America	RES, 47.0 k, 1%, 0.0625 W, 0602	0402
47	R17	1	1.0k	RC0603JR-0710L	Yageo America	RES, 1.0 k, 5%, 0.1 W, 0603	0603
48	R18, R19, R20, R21, R22, R23, R24, R33, R34, R36, R36, R37, R38, R39, R40, R40, R50, R51, R52, R53, R54	21	1.00Meg	ERA-6AE105V	Panasonic	RES, 1.00 M, 0.1%, 0.125 W, AEC-Q200 Grade 0, 0605	0605
49	R25, R40, R55	3	270VAC	B7222020271K101	TDK	Varistor 275 VAC, 100 A, TH	0.3x1.51mm
50	R26, R41, R56	3	1.00k	RG2012P-102-B-T5	Susumu Co Ltd	RES, 1.00 k, 0.1%, 0.125 W, 0605	0605
51	R28, R29, R43, R44, R58, R59	6	20.0k	RG2012P-203-B-T5	Susumu Co Ltd	RES, 20.0 k, 0.1%, 0.125 W, 0605	0605
52	R30, R31, R45, R46, R60, R61	6	20.0	RT0603BRD0720RL	Yageo America	RES, 20.0, 0.1%, 0.1 W, 0603	0603
53	R32, R47, R62	3	470	454J076	Chromal	RES, 470, 5%, 5 W, D8.7mm	D8.7mm
54	R68	1	10k	RC0603JR-0710RL	Yageo	RES, 10 k, 5%, 0.1 W, 0603	0603
55	R69	1	7.5	CR06030575KJNEA	Vishay-Dale	RES, 7.5 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
56	R71	1	320k	RT060305320KJNEA	Yageo America	RES, 320 k, 0.5%, 0.1 W, 0603	0603
57	R72, R73, R76	3	0	CR0603050000020ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
58	R75	1	80.8k	RT060305808KJNEA	Yageo America	RES, 80.8 k, 0.5%, 0.1 W, 0603	0603
59	R11, R12, R13, R14, R15, R16	6	0	RA0603050270RL	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
60	R51	1	2.547706-0		TE Connectivity	Receptacle, D-SUB-9, 2.74mm, Gold, TH	Receptacle, D-SUB-9, 2.74mm, TH
61	S1, S2, S3	3		MJTP5MMW8TR	AFPM	Switch, Tactile, SPST-NO, 12 V, SMD	Switch, Body 8.2x4.3mm
62	SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7	7	1x2	SP0225YAN	Sullins Connector Solutions	Shunt, 100mil, Flash Gold, Black	Closed Top 100mil Shunt
63	U1	1		MSP430P4111P2R	Texas Instruments	SimpleLink™ Mixed-Signal Microcontroller, PZ2100A (LOFP-100)	PZ2100A
64	U2	1		TPS7950300RVR	Texas Instruments	150-mA, 30-V, Ultra-Low IQ, Wide Input Low-Dropout Regulator with Reverse Current Protection, DBV0005A (SOT-23-6)	DBV0005A
65	U3	1		TRS3232EPWWRQ1	Texas Instruments	5-V to 5.5-V Multichannel RS-232 Line Driver / Receiver with ±15-kV IEC ESD Protection, 0 to 70 degC, 16-Pin SSOP (DB), Green (RoHS & no Sn/Bi)	PW0016A
66	U4	1		ISO7721DR	Texas Instruments	High Speed, Robust EMC Dual-Channel Digital Isolator, D0008B (SOIC-8)	D0008B
67	U5	1		ISO7720DR	Texas Instruments	High Speed, Robust EMC Dual-Channel Digital Isolator, D0008B (SOIC-8)	D0008B
68	U8, U9, U12	3		AMC110M0500VVR	Texas Instruments	Small, High-Precision, Basic Isolated Delta-Sigma Modulator, DBV0008A (SOIC-8)	DBV0008A
69	U7, U10, U13	3		TVS05000RVR	Texas Instruments	5-V Precision Surge Protection Clamp, DBV0006A (VSON-6)	DBV0006A
70	U11, U14	3		TLV704300BVR	Texas Instruments	Single Output LDO, 150-mA, Fixed 3.3 V Output, 2.5 to 24 V Input, with Ultra-Low IQ, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sn/Bi)	DBV0005A
71	U15	1		AMC1210BR4R	Texas Instruments	4-Channel Digital Filter for ADS120X family of modulators, RHA0040D (VQFN-40)	RHA0040D
72	U17	1		TLV9001DBVR	Texas Instruments	Low-Power, Rail-to-Rail In and Out, 1-MHz Operational Amplifier, DBV0005A (SOT-23-6)	DBV0005A
73	U18	1		TPS3850H01DCR	Texas Instruments	High Accuracy Voltage Supervisor with Integrated Watchdog Timer, DRC0010J (VSON-10)	DRC0010J
74	Y1	1		FA-238-48.000MB-K3	Epson	Crystal, 48.0MHz, 50 ppm, 10 uF, SMD	3.2x2.5mm
75	Y2	1		CMR200T-32.768K02Y-UF	Citizen Fintech Miyota	Crystal, 32.768 MHz, SMD	D1 3x4.8mm
76	C2	0	4.7uF	CC06032R2Y5V8B475	Yageo America	CAP. CERM. 4.7 uF, 10 V, +/-40%-20%, Y5V, 0605	0605
77	C15	0	0.01uF	CC01052R7Y103K455D	MuRata	CAP. CERM. 0.01 uF, 50 V, +/-10%, C050NPS, 0402	0402
78	C32, C46, C59	0	2.2uF	EMK21287225KG-T	Taiyo Yuden	CAP. CERM. 2.2 uF, 16 V, +/- 10%, XSR, 0805	0805
79	C75, C77	0	1uF	LMK21287105K0-T	Taiyo Yuden	CAP. CERM. 1 uF, 10 V, +/- 10%, XSR, 0805	0805
80	C80	0	0.1uF	C0603C104ZVACTU	Kemet	CAP. CERM. 0.1 uF, 25 V, +/-40%-20%, Y5V, 0603	0603
81	C82	0	0.022uF	C2503C022G3RACTU	Kemet	CAP. CERM. 0.022 uF, 50 V, +/- 10%, XSR, 0603	0603
82	FD1, FD2, FD3	0	N/A	N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
83	J8, J53	0		PBC035AAN	Sullins Connector Solutions	Header, 100mil, 3x1, Gold, TH	PBC035AAN
84	J32, J35	0		961102-6404-AR	3M	Header, 2.54mm, 2x1, TH	Header, 2.54mm, 2x1, TH
85	R14, R16, R64, R65, R66, R67	0	0	RA0603050270RL	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
86	R70, R74	0	47.0k	RC0402FR-0747RL	Yageo America	RES, 47.0 k, 1%, 0.0625 W, 0402	0402
87	U16	0		TPS6020R-0747RL	Texas Instruments	5-V, Step-Up Charge Pump Regulator, 140-mA, 2.7 to 5.5 V Input, -40 to 105 degC, 6-pin SON (DBV), Green (RoHS & no Sn/Bi)	DBV0006A
88	Y3	0		SG-2105TF 13.5600ML	Epson	Oscillator, 13.56 MHz, 1.6 to 3.6 V, SMD	SMD, 2x2.5mm