

Bill of Materials

TI DESIGNS TIDA-00474 E2
User interface design with reliable, high resolution capacitive touch button implementation and proximity sensing – Appliances

Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number	Note (Fit to variant)
1	!PCB	Printed Circuit Board	Any	TIDA-00474	Fitted
32	C11, C12, C14, C15, C20, C21, C23, C24, C25, C26, C28, C29, C34, C35, C39, C40, C42, C43, C46, C47, C49, C50, C52, C53, C54, C55, C57, C58, C62, C63, C65, C66	CAP, CERM, 18 pF, 50 V, +/- 5%, COG/NPO, 0603	TDK	C1608COG1H180J	Not Fitted
10	C13, C22, C27, C36, C41, C44, C51, C56, C64, C68	CAP, CERM, 33 pF, 100 V, +/- 5%, COG/NPO, 0603	AVX	06031A330JAT2A	Fitted
2	C16, C19	CAP, CERM, 10 µF, 6.3 V, +/- 10%, X5R, 0805	Kemet	C0805C106K9PAC	Fitted
5	C17, C32, C37, C45, C60	CAP, CERM, 0.1 µF, 6.3 V, +/- 10%, X7R, 0603	MuRata	GRM188R70J104KA01D	Fitted
3	C18, C31, C59	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0603	Kemet	C0603C105K4PACTU	Fitted
1	C30	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	TDK	C1608X7R1H222K	Fitted
3	C33, C61, C67	CAP, CERM, 0.01 µF, 6.3 V, +/- 10%, X7R, 0603	MuRata	GRM188R70J103KA01D	Fitted
1	C38	CAP, CERM, 4.7 µF, 6.3 V, +/- 20%, X5R, 0603	TDK	C1608X5R0J475M	Fitted
4	C58, C62, C63, C67	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X7R, 0603	AVX	06033C104KAT2A	Fitted
2	C59, C64	CAP, CERM, 0.01 µF, 100 V, +/- 5%, X7R, 0603	AVX	06031C103JAT2A	Fitted
2	C60, C65	CAP, CERM, 4.7 µF, 16 V, +/- 20%, X7R, 1206	TDK	C3216X7R1C475M	Fitted
2	C61, C66	CAP, CERM, 10 µF, 35 V, +/- 10%, X7R, 1206	Taiyo Yuden	GMK316AB7106KL	Fitted
2	D2, D3	Diode, Schottky, 20 V, 0.5 A, SOD-123	ON Semiconductor	MBR0520LT1G	Fitted
1	D5	Diode, Schottky, 40 V, 1 A, SOD-123	Diodes Inc.	1N5819HW-7-F	Not Fitted
3	FID1, FID2, FID3	Fiducial mark. There is nothing to buy or mount.	N/A	N/A	Fitted
4	H1, H2, H3, H4	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&F Fastener Supply	NY PMS 440 0025 PH	Fitted
4	H5, H6, H7, H8	Standoff, Hex, 0.5"L #4-40 Nylon	Keystone	1902C	Fitted
4	H9, H10, H11, H12	Bumpon, Hemisphere, 0.44 X 0.20, Clear	3M	SJ-5303 (CLEAR)	Fitted
2	J7, J8	Header, Male 2-pin, 100mil spacing,	Sullins	PEC02SAAN	Fitted
3	J9, J11, J17	Header, 2.54 mm, 4x1, Gold, TH	Würth Elektronik	61300411121	Fitted
2	J10, J?	Header (Shrouded), 2.54 mm, 8x1, TH	TE Connectivity	5-104363-7	Fitted
4	J11, J12, J14, J16	Header, 2.54 mm, 2x1, Gold, TH	Würth Elektronik	61300211121	Fitted
1	J13	Header, 2.54 mm, 3x1, Gold, TH	Würth Elektronik	61300311121	Fitted
8	L3, L5, L7, L9, L11, L13, L15, L17	Inductor, Shielded, Ferrite, 18 µH, 0.12 A, 3.3 ohm, SMD	Bourns	CMH322522-180KL	Fitted
8	L4, L6, L8, L10, L12, L14, L16, L18	Inductor, Wirewound, Ferrite, 0.2 A, 1.2 ohm, SMD	Bourns	SRF3216-222Y	Not Fitted
2	L17, L18	Inductor, Shielded Drum Core, Ferrite, 56 µH, 0.79 A, 0.43 ohm, SMD	Coilcraft	MSS6132-563MLB	Fitted
1	LS1	Buzzer, Piezo, 4kHz, 12.2mm, TH	TDK	PS1240P02CT3	Fitted

Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number	Note (Fit to variant)
1	Q1	MOSFET, N-CH, 60 V, 0.17 A, SOT-23	Diodes Inc.	2N7002-7-F	Fitted
2	R12, R18	RES, 10 M, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060310M0JNEA	Fitted
1	R13	RES, 1.00, 1%, 1 W, 2512	Vishay-Dale	CRCW25121R00FKEG	Fitted
2	R13, R19	RES, 267 k, 0.1%, 0.1 W, 0603	Yageo America	RT0603BRD07267KL	Fitted
1	R14	RES, 20.0, 1%, 0.125 W, 0805	Vishay-Dale	CRCW080520R0FKEA	Fitted
2	R14, R20	RES, 1.0 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06031K00JNEA	Fitted
2	R15, R21	RES, 45.9 k, 0.1%, 0.1 W, 0603	Yageo America	RT0603BRD0745K9L	Fitted
2	R16, R17	RES, 4.75 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06034K75FKEA	Fitted
2	R16, R22	RES, 100 k, 0.1%, 0.063 W, 0603	TE Connectivity	CPF0603B100KE	Fitted
2	R17, R23	RES, 0.82, 1%, 0.5 W, 1206	Stackpole Electronics Inc	CSR1206FTR820	Fitted
1	R18	RES, 47 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060347K0JNEA	Fitted
1	R19	RES, 2.00 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-072KL	Fitted
1	R26	RES, 100, 1%, 0.1 W, 0603	Yageo America	RC0603FR-07100RL	Fitted
1	R27	RES, 3.3 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW06033K30JNEA	Fitted
1	R33	RES, 10.0 k, 1%, 0.1 W, 0603	Yageo America	RC0603FR-0710KL	Fitted
2	R38, R39	RES, 33.0, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060333R0FKEA	Fitted
3	TP11, TP12, TP13	Test Point, Compact, Red, TH	Keystone	5005	Fitted
16	TP14, TP17, TP19, TP20, TP21, TP22, TP25, TP25, TP26, TP28, TP28, TP29, TP30, TP31, TP31, TP33	Test Point, Compact, Blue, TH	Keystone	5122	Fitted
5	TP15, TP23, TP26, TP27, TP32	Test Point, Miniature, Yellow, TH	Keystone	5004	Fitted
5	TP16, TP18, TP24, TP27, TP30	Test Point, Compact, White, TH	Keystone	5007	Fitted
5	TP29, TP32, TP33, TP34, TP34	Test Point, Compact, Black, TH	Keystone	5006	Fitted
1	U3	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 Sb/Br)	Texas Instruments	TLV70433DBVR	Fitted
2	U4, U7	Multi-Channel 12/26-Bit Capacitance to Digital Converter (FDC) for Capacitive Sensing, RGH0016A	Texas Instruments	FDC2214RGHR	Fitted
1	U5	16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 32-pin QFN (RHB), Green (RoHS & no Sb/Br)	Texas Instruments	MSP430G2553IRHB32R	Fitted
1	U9	Low-Capacitance + / - 15 kV ESD Protection Array for High-Speed Data Interfaces, 6 Channels, -40 to +85 degC, 10-pin UQFN (RSE), Green (RoHS & no Sb/Br)	Texas Instruments	TPD6E001RSER	Fitted
2	U9, U10	1.5A Buck LED Driver with Integrated Analog Current Adjust, DGQ0010D	Texas Instruments	TPS92513DGQR	Not Fitted
3	U10, U11, U12	DUAL CHANNEL HIGH SPEED ESD PROTECTION DEVICE, DRL0005A	Texas Instruments	TPD2E2U06DRL	Not Fitted
1	Y2	OSC, 40 MHz, 3.3 V, SMD	CTS Electrocomponents	625L3C040M00000	Fitted

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