

DECKARD'S DREAM BILL OF MATERIALS REV 1.0.7

HARDWARE BOARD

VALUE	DESIGNATOR	QUANTITY	FOOTPRINT	NOTE	MOUSER PART #
15uF	C100, C101	2	5MM DIA / 2MM LS	ELECTROLYTHIC CAPACITOR	598-156PUM035M
0.1uF	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, 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, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C86, C87, C88, C89, C92, C93, C94, C95, C96, C97, C98, C99, C102, C103, C104	99	SMT 0805	CERAMIC CAPACITOR	581-0805S104K
4D4051	IC2, IC3, IC5, IC6, IC8, IC9, IC11, IC12, IC14, IC15	10	DIP16	ANALOG MULTIPLEXER/DEMULTIPLEXER	595-DC4051BE
74HC595	IC4, IC7, IC10, IC13, IC16	5	DIP16	8-BIT SHIFT REGISTER WITH 3-STATE OUTPUT REGISTER	595-SN74HC595N
	PLD1	1	PLD-10	2.54M PITCH 2X5 FEMALE HEADER	517-829075-01-05-FK
	PLD2	1	PLD-12	2.54M PITCH 2X6 FEMALE HEADER	517-829075-01-06-FK
47K	R1, R2, R3, R4, R5, R11, R12, R13, R14, R19, R20	11		1/4W 1% RESISTOR	271-47K-RC
10K	R6, R7, R8, R9, R10, R15, R16, R17, R18, R21, R22	11		1/4W 1% RESISTOR	271-10K-RC
1K	R23, R24, R26, R27, R28, R29, R30, R31, R32, R33	10		1/4W 1% RESISTOR	271-1K-RC
	SW1, SW2, SW3, SW4	4		DPDT SLIDE SWITCH	612-EG2201B
	SW5	1		DPST SLIDE SWITCH	612-EG2301B
10-100K LINEAR		51		SLIDE POTENTIOMETER 30MM TRAVEL	652-PTA30432015B104
10-100K LINEAR		9		SLIDE POTENTIOMETER 20MM TRAVEL	652-PTA20432015CFB104
10-100K LINEAR		9		SLIDE POTENTIOMETER 20MM TRAVEL CENTER DETENT	652-PTA24322132CFB104
10-100K LINEAR		1		9MM METAL ROUND SHAFT POTENTIOMETER	http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-right-angle-pc-mount/
	BT1, BT2, BT3, BT4, BT5	5	6x6MM	TACT SWITCH 15MM HEIGHT	http://www.ebay.com/itm/232190328351
	OLED	1		0.96" 12C IIC SPI SERIAL 128X64 WHITE OLED DISPLAY	http://www.ebay.com/itm/172518846641

MAIN BOARD

VALUE	DESIGNATOR	QUANTITY	FOOTPRINT	NOTE	MOUSER PART #
	BREAKOUT	1	IDC-16	16 PIN IDC MALE HEADER	571-1761681-6
330uF	C288, C289, C333, C338	4	10MM DIA / 5MM LS	ELECTROLYTHIC CAPACITOR	667-ECA-1VM331
15uF	C1, C2, C3, C4, C5, C34, C35, C36, C86, C87, C88, C89, C282, C283, C339, C340	16	5MM DIA / 2MM LS	ELECTROLYTHIC CAPACITOR	598-156PUM035M
0.1uF	C11, C13, C14, C15, C16, C18, C19, C20, C21, C23, C24, C30, C33, C38, C40, C43, C50, C52, C55, C62, C64, C67, C71, C78, C79, C80, C81, C83, C85, C88, C102, C103, C107, C110, C111, C113, C116, C118, C123, C127, C128, C130, C131, C133, C135, C138, C145, C146, C148, C149, C151, C153, C156, C163, C164, C167, C169, C172, C185, C187, C190, C203, C205, C208, C221, C223, C226, C239, C241, C244, C250, C251, C253, C254, C257, C259, C262, C268, C269, C270, C271, C274, C275, C290, C291, C299, C301, C308, C307, C308, C299, C306, C309, C310, C311, C316, C317, C319, C320, C336, C337	101	SMT 0805	CERAMIC CAPACITOR	581-0805S104K
10uF	C6	1	SMT 0805	CERAMIC CAPACITOR	963-EMK2126J106K-G-T
4.7uF	C17, C39, C41, C42, C51, C53, C54, C83, C85, C86, C75, C77, C78, C84, C86, C87, C114, C116, C118, C119, C124, C138, C137, C152, C154, C155, C168, C176, C177, C186, C188, C189, C204, C206, C207, C222, C224, C225, C240, C242, C243, C258, C260, C261	43	5MM LS	CERAMIC CAPACITOR	810-FK28X5R1E225KR76
2.2uF	C7, C8, C108, C124	4	5MM LS	CERAMIC CAPACITOR	810-FG28X5R1E225KR76
1uF	C12, C334, C335	3	5MM LS	CERAMIC CAPACITOR	810-FG28X5R1H105KR70
0.47uF	C165, C166, C173, C174, C175, C176, C179, C180, C183, C184, C191, C192, C193, C194, C197, C198, C201, C202, C209, C210, C211, C212, C215, C216, C219, C220, C227, C228, C229, C230, C233, C234, C237, C238, C245, C246, C247, C248, C249, C252, C255, C256, C263, C264, C265, C266, C267	47	5MM LS	CERAMIC CAPACITOR	810-FG28X7RH474KNT6
0.01uF	C25, C32, C44, C45, C48, C49, C56, C57, C60, C61, C68, C69, C72, C73, C80, C81, C84	17	5MM LS	CERAMIC CAPACITOR	810-FG28CG1H103JN76
5600pF	C22, C292, C295, C300, C303, C304, C307, C312, C315, C316, C319, C325, C326	13	5MM LS	CERAMIC CAPACITOR	810-FG28CG01H561JN70
1000pF	C85, C92, C98, C100, C101, C104, C105, C106, C109, C112, C119, C120, C121, C122, C125, C126, C129, C132, C139, C140, C141, C142, C143, C144, C147, C150, C157, C158, C159, C160, C181, C182, C272, C273, C276, C277, C286, C287, C288, C289, C294, C291, C292, C293, C296, C313, C314, C321, C322, C324, C326, C327, C331	52	5MM LS	CERAMIC CAPACITOR	810-FG28CG01H101JN76
22pF	C9, C10	2	5MM LS	CERAMIC CAPACITOR	810-FG28CG1H220JN76
1uF	C332, C341	2	5MM LS	FILM CAPACITOR	80-R82DC4100AA60J
1000nF	C29	1	5MM LS	FILM CAPACITOR	80-R82EC3100DQ70J
1nF	C31	1	5MM LS	FILM CAPACITOR	80-R82EC1100Z350J
BAT43	D1, D2	2	DO-35	SMALL SIGNAL SCHOTTKY DIODE	511-BAT43
STM32F405RG16	IC1	1	LQFP64	ARM CORTEX-M4 32 BIT MCU	PREINSTALLED
SST25VF040B	IC2	1	SOIC8	4 MBIT SPI SERIAL FLASH	PREINSTALLED
MAX5134	IC8, IC11, IC13, IC15	4	TSSOP16	QUAD 16 BIT VOLTAGE-OUTPUT DAC	PREINSTALLED
MAX5592	IC17, IC21, IC24, IC27, IC30, IC33, IC36, IC39, IC42, IC45	10	TSSOP28	OCTAL 12 BIT VOLTAGE-OUTPUT DAC	PREINSTALLED
TPA152	IC59	1	SOIC8	75-mW STEREO AUDIO POWER AMPLIFIER	PREINSTALLED
CD4051	IC3, IC4	2	DIP16	ANALOG MULTIPLEXER/DEMULTIPLEXER	595-CD4051BE
TL072	IC5, IC6, IC15, IC58	4	DIP8	DUAL OPERATIONAL AMPLIFIER	595-TL072P
PENTANOISE	IC7	1	DIP8	NOISE GENERATOR	http://electronicdrive.net/product/pentanoise-noise-generator/
TL431	IC9, IC18	2	TO-92	PRECISION PROGRAMMABLE REFERENCE	595-TL431CLP
TL074	IC19, IC20, IC22, IC23, IC25, IC26, IC28, IC29, IC43, IC44, IC46, IC47, IC48, IC50, IC52, IC54, IC56	17	DIP14	QUAD OPERATIONAL AMPLIFIER	595-TL074CN
V2164	IC55, IC56, IC57	3	DIP16	QUAD VOLTAGE CONTROLLED AMPLIFIER	https://www.thornc.co.uk/shop/coolaudio-v2164-ali/ http://synthcube.com/cart/ddm-80x-v2164-ic
TLV431	IC61	1	TO-92	LOW-VOLTAGE ADJUSTABLE PRECISION SHUNT	595-TLV431ALPR
PD10	PBD1	1	PBD-10	2.54M PITCH 2X5 MALE HEADER	517-829836-01-05-FK
PLD-12	PBD2	1	PBD-12	2.54M PITCH 2X6 MALE HEADER	517-829836-01-06-FK
IRLML2402	Q1	1	SOT23	MOSFET	PREINSTALLED
120K	R188, R190	2		1/4W 1% RESISTOR	271-120K-RC
100K	R21, R46, R48, R50, R52, R54, R56, R62, R63, R65, R67, R69, R71, R73, R77, R81, R82, R84, R86, R88, R90, R92, R94, R97, R98, R100, R102, R104, R106, R108, R110, R113, R114	33		1/4W 1% RESISTOR	271-100K-RC
51K	R45, R47, R49, R51, R53, R55, R58, R60, R64, R66, R68, R70, R72, R75, R79, R80, R83, R85, R87, R89, R91, R93, R95, R96, R99, R101, R103, R105, R107, R109, R111, R112	32		1/4W 1% RESISTOR	271-51K-RC
47K	R2	1		1/4W 1% RESISTOR	271-47K-RC
30K	R165, R170, R175, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R186, R187, R188, R189, R191, R192, R193, R196, R197, R198, R199, R202, R203, R204, R205, R208, R210, R211, R214, R216, R217, R220, R221, R222, R223, R224, R225, R228, R229, R230, R231, R236, R237	45		1/4W 1% RESISTOR	271-30K-RC
22k6	R162, R167	2		1/4W 1% RESISTOR	271-22.6K-RC
22K	R208, R215	2		1/4W 1% RESISTOR	271-22K-RC
20K	R238, R239, R240, R242, R243, R245	6		1/4W 1% RESISTOR	271-20K-RC
10K	R6, R7, R8, R9, R10, R11, R27, R32, R37, R42, R78, R163, R164, R166, R168, R169, R171	17		1/4W 1% RESISTOR	271-10K-RC
5K6	R20	1		1/4W 1% RESISTOR	271-5.6K-RC
4K7	R3, R4, R13	3		1/4W 1% RESISTOR	271-4.7K-RC
2K	R74	1		1/4W 1% RESISTOR	271-2K-RC
2K2	R15	1		1/4W 1% RESISTOR	271-2.2K-RC
1K3	R76	1		1/4W 1% RESISTOR	271-1.3K-RC
1K	R1, R12, R14, R22, R23, R24, R25, R26, R28, R29, R30, R31, R33, R34, R35, R36, R38, R39, R40, R41, R43, R44, R45, R47, R50, R51, R55, R115, R116, R117, R118, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R139, R140, R141, R142, R143, R144, R145, R146, R147, R148, R149, R150, R151, R152, R154, R155, R156, R157, R158, R159, R160, R161	72		1/4W 1% RESISTOR	271-1K-RC
499R	R194, R195, R200, R201, R206, R207, R212, R213, R218, R219, R226, R227	12		1/4W 1% RESISTOR	271-499-RC
100R	R241, R244	2		1/4W 1% RESISTOR	271-100-RC
22R	R5	1		1/4W 1% RESISTOR	271-22-RC
	STLINK	1	IDC-20	20 PIN IDC MALE HEADER	571-1761681-7
BAT855	Z1, Z2, Z3	3	DO-35	SCHOTTKY BARRIER RECTIFIER	78-BAT855-TAP
8MHz	ZD1	1	HC-49/US	AT-CUT CRYSTAL UNIT	695-HC49US-8-U
	J1	1		1/4" STEREO JACK	502-112BX
	POWER, VOICE1, VOICE2, VOICE3, VOICE4, VOICE5, VOICE6, VOICE7, VOICE8	9	EDAC-44	44PIN EDGE CONNECTOR	http://www.ebay.com/itm/13048232450

VOICE BOARD

VALUE	DESIGNATOR	QTY (1 CARD)	QTY (8 CARDS)	FOOTPRINT	NOTE	MOUSER PART #
220uF	C1, C2, C3, C4	4	32	8MM DIA / 3.5 LS	ELECTROLYTHIC CAPACITOR	667-ECA-1VM221
47uF	C11, C26	2	16	5MM DIA / 2MM LS	ELECTROLYTHIC CAPACITOR	667-ECA-10M470
1uF	C30, C31, C42, C77, C97, C98, C109, C142	8	64	5MM DIA / 2MM LS	ELECTROLYTHIC NON-POLARIZED CAPACITOR	647-LVP10H10MDD1TD
0.1uF	C5, C6, C7, C8, C12, C13, C16, C18, C20, C21, C22, C23, C24, C25, C26, C27, C35, C37, C40, C41, C46, C47, C49, C50, C55, C56, C57, C58, C60, C61, C71, C72, C73, C74, C83, C84, C87, C89, C91, C92, C93, C94, C100, C101, C103, C111, C112, C115, C116, C118, C121, C127, C131, C132, C135, C140, C144	58	464	SMT 0805	CERAMIC CAPACITOR	581-0805S104K
0.01uF	C9, C10, C19, C80, C81, C90	6	48	5MM LS	CERAMIC CAPACITOR	810-FG28CG1H103JN76
1000pF	C14, C15, C17, C85, C86, C88	6	48	5MM LS	CERAMIC CAPACITOR	810-FG28CG01H102JN70
5600pF	C33, C34, C36, C44, C45, C48, C51, C54, C52, C66, C67, C70, C75, C79, C100, C101, C103, C111, C112, C115, C116, C118, C121, C127, C131, C132, C135, C140, C144	28	224	5MM LS	CERAMIC CAPACITOR	810-FG28CG01H561JN70
180pF	C32, C43, C99, C110	4	32	5MM LS	CERAMIC CAPACITOR	810-FG28CG01H181JN76
1000pF	C52, C53, C59, C63, C64, C65, C68, C69, C76, C78, C119, C120, C124, C128, C129, C130, C133, C134, C141, C143	20	160	5MM LS	CERAMIC CAPACITOR	810-FG28CG1H101JN76
1.5uF	C28, C29, C38, C39, C95, C96, C105, C106	8	64	5MM LS	FILM CAPACITOR	80-R82EC1150A50J
CEM3340	IC1, IC16	2	16	DIP16	VOLTAGE CONTROLLED OSCILLATOR	https://www.thornc.co.uk/shop/curtis-cem3340-ic-vcxo-chip/ http://synthcube.com/cart/ddm-sncjip-cem3340-x-17
TL074	IC2, IC6, IC7, IC12, IC14, IC17, IC19, IC20, IC25, IC28	10	80	DIP14	QUAD OPERATIONAL AMPLIFIER	595-TL074CN
74LS274	IC3	1	8	DIP14	POSITIVE EDGE TRIGGERED FLIP-FLOP	595-SN74LS274AN
DC2003	IC4	1	8	DIP16	SPDT CMOS ANALOG SWITCH	781-DG4003-U-ES
DG202	IC5	1	8	DIP16	SPST CMOS ANALOG SWITCH	781-DG202BDJ-E3
TL072	IC8, IC11, IC21, IC24	4	32	DIP8	DUAL OPERATIONAL AMPLIFIER	595-TL072P
V2164	IC9, IC10, IC13, IC15, IC22, IC23, IC27	7	56	DIP16	QUAD VOLTAGE CONTROLLED AMPLIFIER	https://www.thornc.co.uk/shop/coolaudio-v2164-ali/ http://synthcube.com/cart/ddm-80x-v2164-ic
2N3904	Q1, Q2, Q3, Q4	4	32	TO-92	NPN TRANSISTOR	610-2N3904
4M7	R52, R53, R67, R68, R158, R159, R173, R174	8	64		1/4W 1% RESISTOR	603-MFR-25RFR52-4M7
1M5	R5, R11	2	16		1/4W 1% RESISTOR	271-1.5M-RC
1M2	R60, R74, R166, R160	4	32		1/4W 1% RESISTOR	603-MFR-25RFR52-1M2
1M	R37, R143	2	16		1/4W 1% RESISTOR	271-1.0M-RC
300K	R6, R112	2	16		1/4W 1% RESISTOR	271-300K-RC
150K	R56, R59, R61, R69, R162, R165, R167, R175	8	64		1/4W 1% RESISTOR	271-150K-RC
120K	R88, R194	2	16		1/4W 1% RESISTOR	271-120K-RC
107K	R24, R120	2	16		1/4W 1% RESISTOR	271-107K-RC
100K	R18, R28, R41, R43, R44, R46, R48, R49, R124, R134, R147, R149, R150, R152, R154, R155	16	128		1/4W 1% RESISTOR	271-100K-RC
73K2						