## 281D\_Master

Reference	Quantity	Value	Footprint	Manufacturer	MPN	Supplier	Order Code	Description	Notes
PCB Mount									
C102-103 C202-203 C302-303 C402-403	8	47n	C0805	Yageo	CC0805KRX7R9BB473	Mouser	603-CC0805KRX7R9BB473	X7R, 50V, 10%	
C4 C6-8 C111-118 C211-213 C311-318 C411-413	26	100n	C0805	Yageo	CC0805KRX7R9BB104	Mouser	603-CC0805KRX7R9BB104	X7R, 50V, 10%	
C101 C201 C301 C401	4	220n	C2416	Panasonic	ECH-U1H224GX9	Mouser	667-ECH-U1H224GX9	PPS, 50V, 2%	Alt. Fit 5.08mm THT box caps C 101, C 201, C 301, C 401
C1-3 C5	4	22u	CE5x5.8	Panasonic	EEE-FK1V220AR	Mouser	667-EEE-FK1V220AR	35V, 20%, 105deg	
D101 D107/207 D201 D301 D307/407 D401	6	BAT54C	SOT-23-3	On Semiconductor	BAT54CLT1G	Mouser	863-BAT54CLT1G	Dual schottky diode common cathode	
D102 D202 D302 D402	4	SZMM3Z10VST1G	SOD-323	On Semiconductor	SZMM3Z10VST1G	Mouser	863-SZMM3Z10VST1G	Zener diode 10.2V 300mW	
D103-104 D108-109 D203-204 D208 D303-304 D308-309 D403-									
404 D408	14	BAT54WS	SOD-323	Diodes Inc	BAT54WS-7-F	Mouser	621-BAT54WS-F	Schottky diode 100mA	
D1 D105 D205 D305 D405	5	Red 3mm	3mm LED THT	Wurth Elektronik	151031SS04000	Mouser	710-151031SS04000	LED red 3mm 635nm 160mcd	
D106 D206 D306 D406	4	Yel 3mm	3mm LED THT	Wurth Elektronik	151031YS06000	Mouser	710-151031YS06000	LED vellow 3mm 590nm 110mcd	
L1 L2 L3	3	10u	L0805	Taivo Yuden	LBC2012T100K	Mouser	963-LBC2012T100K	1.2R. 200mA. 10%	
Q1 Q103 Q203 Q303 Q403	5	MMBT3904	SOT-23-3	On Semiconductor	MMBT3904LT1G	Mouser	863-MMBT3904LT1G	NPN	
Q101 Q201 Q301 Q401	4	DMMT3906W	SOT-363	Diodes Inc	DMMT3906W-7-F	Mouser	621-DMMT3906W-F	Dual Matched PNP	Note polarity – these are not symmetrical!
Q102 Q202 Q302 Q402	4	MMBFJ201	SOT-23-3	On Semiconductor	MMBFJ201	Mouser	512-MMBFJ201	N-Channel JFET	rece polarity those are not symmetrical.
\$102 \$202 \$002 \$ 102		IIIIIDI OZOZ	00.200	On Connocinación	111111111111111111111111111111111111111	IIIOUOU!	012 11111131 0201	TO THE STORY OF LI	
R123-124 R127 R223-224 R227 R323-324 R327 R423-424 R427	12	680R	R0805	Yageo	RC0805FR-07680RL	Mouser	603-RC0805FR-07680RL	150V, 125mW, 1%, 100PPM	
R110 R116 R144 R147 R153 R210 R216 R244 R247 R310 R316									
R344 R347 R353 R410 R416 R444 R447	18	1k	R0805	Yageo	RC0805FR-071KL	Mouser	603-RC0805FR-071KL	150V, 125mW, 1%, 100PPM	
R102 R119 R129-132 R202 R219 R229-232 R302 R319 R329-									
332 R402 R419 R429-432	24	4k7	R0805	Yageo	RC0805FR-074K7L	Mouser	603-RC0805FR-074K7L	150V, 125mW, 1%, 100PPM	
R106 R148 R206 R306 R348 R406	6	5k6	R0805	Yageo	RC0805FR-075K6L	Mouser	603-RC0805FR-075K6L	150V, 125mW, 1%, 100PPM	
R1 R134 R234 R334 R434	5	6k8	R0805	Yageo	RC0805FR-076K8L	Mouser	603-RC0805FR-076K8L	150V, 125mW, 1%, 100PPM	
R126 R136 R143 R146 R152 R226 R236 R243 R246 R326 R336									
R343 R346 R352 R426 R436 R443 R446	18	10k	R0805	Yageo	RC0805FR-0710KL	Mouser	603-RC0805FR-0710KL	150V, 125mW, 1%, 100PPM	
R142 R145 R151 R242 R245 R342 R345 R351 R442 R445	10	11k	R0805	Yageo	RC0805FR-0711KL	Mouser	603-RC0805FR-0711KL	150V, 125mW, 1%, 100PPM	
R103 R203 R303 R403	4	15k	R0805	Yageo	RC0805FR-0715KL	Mouser	603-RC0805FR-0715KL	150V, 125mW, 1%, 100PPM	
R2 R128 R133 R140 R228 R233 R240 R328 R333 R340 R428									
R433 R440	13	22k	R0805	Yageo	RC0805FR-0722KL	Mouser	603-RC0805FR-0722KL	150V, 125mW, 1%, 100PPM	
R104 R108-109 R113-114 R121 R125 R149 R204 R208-209 R213-214 R221 R225 R304 R308-309 R313-314 R321 R325 R349 R404 R408-409 R413-414 R421 R425	30	47k	R0805	Yageo	RC0805FR-0747KL	Mouser	603-RC0805FR-0747KL	150V, 125mW, 1%, 100PPM	
R105 R107 R115 R117 R135 R205 R207 R215 R217 R235 R305 R307 R315 R317 R335 R405 R407 R415 R417 R435	20	49k9	R0805	Yageo	RC0805FR-0749K9L	Mouser	603-RC0805FR-0749K9L	150V. 125mW. 1%. 100PPM	
R101 R111-112 R138 R141 R150 R201 R211-212 R238 R241				ragoo					
R301 R311-312 R338 R341 R350 R401 R411-412 R438 R441	22	100k	R0805	Yageo	RC0805FR-07100KL	Mouser	603-RC0805FR-07100KL	150V, 125mW, 1%, 100PPM	
R122 R222 R322 R422	4	150k	R0805	Yageo	RC0805FR-07150KL	Mouser	603-RC0805FR-07150KL	150V, 125mW, 1%, 100PPM	
R137 R237 R337 R437	4	470k	R0805	Yageo	RC0805FR-07470KL	Mouser	603-RC0805FR-07470KL	150V, 125mW, 1%, 100PPM	
R139 R239 R339 R439	4	1M	R0805	Yageo	RC0805FR-071ML	Mouser	603-RC0805FR-071ML	150V, 125mW, 1%, 100PPM	
R118 R120 R218 R220 R318 R320 R418 R420	8	4M7	R0805	Yageo	RC0805FR-074M7L	Mouser	603-RC0805FR-074M7L	150V, 125mW, 1%, 100PPM	
SW1 SW101 SW201 SW301 SW401	5		M201X	NKK	M2013SS1W01	Mouser	633-M201301	Toggle switch SPDT On-Off-On	
SW102, SW302,	2	SPDT_ON-ON	M201X	NKK	M2012SS1W01	Mouser	633-M201201	Toggle switch SPDT On-On	
TR101, TR201, TR301, TR401,	4	50k	3314J	Bourns	3314J-1-503E	Mouser	652-3314J-1-503E	500V,250mW, 20%, 100PPM	
U1,	1	L78L10	SOT-89	ST Microelectronics	L78L10ACUTR	Mouser	511-L78L10ACU	Linear voltage reg 10V 100mA	
U2,	1	TL072	SOIC08	Texas Instruments	TL072IDR	Mouser	595-TL072IDR	Dual op-amp FET input	
U101, U201, U105/205, U301, U401, U305/405,	6	TL074	SOIC14	Texas Instruments	TL074IDR	Mouser	595-TL074IDR	Quad op-amp FET input	
U102, U202, U302, U402,	4	CD4001	SOIC14	Texas Instruments	CD4001BM96	Mouser	595-CD4001BM96	Quad NOR gate 2 input	
U103/203, U303/403,	2	CD4066	SOIC14	Texas Instruments	CD4066BM96	Mouser	595-CD4066BM96	Quad analogue switch SPST	
U104/204, U304/404,	2	LM13700	SOIC16	Texas Instruments	LM13700MX/NOPB	Mouser	926-LM13700MX/NOPB	Dual transconductance amplifier	
VR101-102 VR201-202 VR301-302 VR401-402	8	10k Linear	RV16AF-41-(L)R1-XXX		RV16AF-41-15R1-103B	Small Bear	1011 B10K	16mm RA PCB mount potentiometer	
VR203 VR403	2	100k Linear	RD901F-40-00D	Alpha	RD901F-40-15R1-104B	Small Bear	1012A B100K	9mm RA PCB mount potentiometer	
** **	8			Alpha	M7x0.75	Small Bear	1018	Toothed washer for 16mm potentiometer	Fit between potentiometer body and panel
	8			Alpha		Small Bear	1011AM	Dust cover for 16mm potentiometer	Fit on all 16mm potentiometers

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Reference	Quantity	Value	Footprint	Manufacturer	MPN	Supplier	Order Code	Description	Notes
Panel Mount									
J101 J201 J301 J401	4	Pulse inputs		Johnson	108-0906-001	Mouser	530-108-0906-1	Orange banana jack	
J102-103 J202-203 J302-J303 J402-J403	8	CV inputs		Johnson	108-0903-001	Mouser	530-108-0903-1	Black banana jack	
J104 J204 J304 J404	4	Pulse outputs		Johnson	108-0902-001	Mouser	530-108-0902-1	Red banana jack	
J105-106 J205 J305-306 J405	6	CV outputs		Johnson	108-0910-001	Mouser	530-108-0910-1	Blue banana jack	
24awg wire black 25mm length	8			Alpha Wire	892419 BK005	Mouser	602-892419-100-02	Wiring to CV inputs	Strip 4mm each end. Order code is for 30.5m reel
24awg wire orange 25mm length	4			Alpha Wire	892419 OR005	Mouser	602-892419-100-08	Wiring to pulse inputs	Strip 4mm each end. Order code is for 30.5m reel
24awg wire red 25mm length	4			Alpha Wire	892419 RD005	Mouser	602-892419-100-03	Wiring to pulse outputs	Strip 4mm each end. Order code is for 30.5m reel
24awg wire blue 25mm length	6			Alpha Wire	892419 BL005	Mouser	602-892419-100-06	Wiring to CV outputs	Strip 4mm each end. Order code is for 30.5m reel
Hardware & Misc									
PCB	1			Dunnington Audio		thebeast.co.uk	http://thebeast.co.uk/?product	Printed circuit board	
Front panel	1			The Beast		thebeast.co.uk	http://thebeast.co.uk/?product	Front panel	
M3x14mm F-F Standoff	3			Harwin	R30-1001402	Mouser	855-R30-1001402		
M3x6mm Pozi CSK	3			RS Pro		RS	528-946		Panel to standoff fixing
M3x6mm Pozi Pan SEMS	3			RS Pro		RS	279-149		PCB to standoff fixing
M3 Toothed Washer	3			RS Pro		RS	526-574		Fit between standoffs and panel
Small Skirted Knob Blue	8			Rogan	RB-67-0-SK-7-M	Thonk	https://www.thonk.co.uk/shop/	r	Fit on all 16mm potentiometers
Small Unskirted Knob Blue	2			Rogan	RB-67-0-ML	Thonk	https://www.thonk.co.uk/shop/	r	Fit on all 9mm potentiometers
Switch Cap Red	4			Mountain Switch	10TB001	Mouser	10TB001		Fit on SW101, SW201, SW301, SW401
Switch Cap Yellow	2			Mountain Switch	10TB005	Mouser	10TB005		Fit on SW102, SW302
Switch Cap White	1			Mountain Switch	10TB003	Mouser	10TB003		Fit on SW1
J1	1	Power		EDAC	306-010-500-102	Mouser	587-306-50-010	10P edge connector, 3.96mm	
	1			EDAC	338-240-328	Mouser	587-338-240-328	Polarizing key	Fit in position 7 of power EDAC
20awg wire black 350mm length	1	Q		Alpha Wire	892019 BK005	Mouser	602-892019-100-02		EDAC position 1. Order code is for 30.5m reel.
20awg wire white 350mm length	1	-15V		Alpha Wire	892019 WH005	Mouser	602-892019-100-01		EDAC position 2. Order code is for 30.5m reel.
20awg wire red 350mm length	1	+15V		Alpha Wire	892019 RD005	Mouser	602-892019-100-03		EDAC position 3. Order code is for 30.5m reel.
20awg wire green 350mm length	1	+12V		Alpha Wire	892019 GR005	Mouser	602-892019-100-04		EDAC position 4. Order code is for 30.5m reel.
Expandable Sleeving 3mm 300mm	1			Alpha Wire	GRP1301/8 BK007	Mouser	602-130018-50BK		Fit over power cabling
Heatshrink 6.35mm 40mm length	2			Alpha Wire	FIT221V1/4 BK103	Mouser	602-221V014-4		Fit at each end of expandable sleeving
Heatshrink 3.18mm 12mm length	4			Alpha Wire	FIT221V1/8 BK103	Mouser	602-221V018-4		Fit over terminated EDAC contacts
Cable ties	2			Panduit	PLT.7M-M	Mouser	644-PLT.7M-M		Secure power cabling to PCB and EDAC