

Klondike 1 - Nano ASIC Miner

Pricing was checked online but is a guide only and may not be accurate at the time of viewing.

Preliminary Parts List

Part#	Description	Product #	MFR.	Value	Package	QTY	Cost Qty 1	Cost Qty 25	Cost Qty 100	Dist.
PCB	4 Layer Circuit Board	PCB	China	5cm x 2.5cm		1	2.500	0.900	0.600	
U3	Avalon ASIC chip	AVALON	Avalon		QFN48	1	0.000	0.000	0.000	Avalon
U2	USB Micro Controller	PIC16LF1459-I/ML	Microchip		QFN20	1	1.620	1.480	1.340	Microchip
U1	1.2V, 2A Buck Step Down Regulator	AP6502A	Diodes Inc.	2A	SOIC-8	1	0.930	0.728	0.351	Mouser
U1	Alternate: 1.2V, 3A Buck Reg	AP6503A	Diodes Inc.	3A	SOIC-8	0	1.080	0.865	0.750	Mouser
U4	3.3V, 250mA LDO Regulator	MCP1700T-3302E/TT	Microchip	250mA	SOT-23	1	0.400	0.310	0.280	Microchip
U4	Alternate: AP7313-33 LDO Regulator	AP7313-33	Diodes Inc.	150mA	SOT-23R	0	0.450	0.301	0.204	Mouser
U5	1.2V, 600mA LDO Regulator	AP7217D-12YG-13	Diodes Inc.	600mA	SOT-89-3L	1	0.490	0.360	0.309	Mouser
U6	Dual NOR Gate	74AUP2G02DC	NXP		SOT-765-1	1	0.210	0.197	0.186	Mouser
U7	Dual Schmitt Trigger Inverter	NL27WZ14DFT2G	On Semi.		SOT-363	1	0.440	0.260	0.208	Mouser
X1	Oscillator	ASDMB-32.0-LC	Abracon	32MHz	QFN4	1	1.690	1.430	1.010	Digikey
D1	Schottky Diode, Low Vf	SL02-GS08	Vishay	1A, 30V	DO-219AB	1	0.220	0.190	0.170	Mouser
D2	Red LED (Data)	VLMS1300-GS08	Vishay	2V, 20mA	0603	1	0.080	0.072	0.066	Mouser
D3	Green LED (Power)	VLMG1300-GS08	Vishay	2V, 20mA	0603	1	0.080	0.076	0.070	Mouser
L1	Power Inductor	SRN4018-3R3M	Bourns	3.3uH, 2.2A	4x4mm	1	0.320	0.275	0.250	Mouser
L1	Alternate: Power Inductor	SRR6038-3R3Y	Bourns	3.3uH, 3.5A	6.8x6.8mm	0	0.640	0.463	0.428	Mouser
L2	Ferrite Bead Choke	ILBB0603ER600V	Vishay	60 ohm, 25%	0603	1	0.110	0.036	0.029	Mouser
L3,L4	Ferrite Bead Choke	BLM15BB121SN1D	Murata	120 ohm, 300mA	0402	2	0.240	0.105	0.060	Mouser
L5,L6	Ferrite Bead Choke	BLM21PG221SN1	Murata	220 ohm, 2A	0603	2	0.350	0.123	0.068	Mouser
C1,C9-11	Ceramic Capacitor	C1608X5R0J106M	TDK	10uF	0603	4	0.120	0.120	0.095	Mouser
C2	Ceramic Capacitor	GRM188R71E104KA01J	Murata	0.1uF	0603	1	0.040	0.028	0.019	Mouser
C4	Ceramic Capacitor	VJ0603Y682KXXCW1BC	Vishay	6.8nF	0603	1	0.200	0.027	0.018	Mouser
C5-6	Ceramic Capacitor	C1608X5R0J226M	TDK	22uF	0603	2	0.150	0.117	0.106	Mouser
C3,C7,C25	Ceramic Capacitor	VJ0402Y103KXXAC	Vishay	0.01uF	0402	2	0.025	0.016	0.015	Mouser
C12-23	Ceramic Capacitor	C1005X7S1A474K	TDK	0.47uF	0402	12	0.020	0.017	0.015	Mouser
C24	Ceramic Capacitor	GRM1555C1E300JA01D	Murata	30pF	0402	1	0.250	0.034	0.024	Mouser
C8,C26	Ceramic Capacitor	GRM155R71C104KA88D	Murata	0.1uF	0402	2	0.100	0.014	0.010	Mouser
R1	Thick Film Resistor	ERJ-3EKF3001V	Panasonic	3K	0603	1	0.070	0.020	0.003	Mouser
R2	Thick Film Resistor	ERJ-3EKF1002V	Panasonic	10K	0603	1	0.070	0.020	0.003	Mouser
R3	Thick Film Resistor	ERJ-3EKF3241V	Panasonic	3.24K	0603	1	0.070	0.020	0.003	Mouser
R4,R5,R9,R10,R12	Thick Film Resistor	ERJ-3EKF1001V	Panasonic	1K	0603	5	0.070	0.020	0.003	Mouser
R6	Thick Film Resistor	ERJ-2RKF1003X	Panasonic	100K	0402	1	0.070	0.020	0.003	Mouser
R7,R8,R11	Thick Film Resistor	ERJ-3EKF1000V	Panasonic	100 1%	0603	3	0.070	0.020	0.003	Mouser
RT1	Thermistor	NCP15XW222J03RC	Murata	2.2K 5%	0402	1	0.270	0.127	0.085	Mouser
				TOTAL	PER BOARD	55	12.87	8.08	6.04	