## Klondike 16 - ASIC Miner Board

## Preliminary Parts List

Part#         Description         Product #         MFT           PCB         4 Layer Circuit Board         PCB         Chir           U1-U16         Avalon ASIC chip         AVALON         Aval           U17         USB Micro Controller         PIC16LF1459-I/SS         Micro           U18-19         1.2V, 16A Buck Step Down Regulator         IR3895         Intl. R           U20         3.3V, 1A Buck Step Down Regulator         MCP16321T-330E/NG         Micro           U21         Dual Schmitt Trigger Buffer         MCP16321T-330E/NG         Micro           U22,U23         1.2V, 600mA LDO Regulator         AP7217D-12YG-13         Diodes           U24         Single NOR Gate         74AUP1G02         NX           X1         Oscillator         ASDMB-32.0-LC         Abra           Q1         N-Channel MOSFET         NDS351AN         Faircl           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor         MLP2016S4R7M         TDI           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichic           C4-8,C23-27,C41,C42         Ceramic Capacitor	ina 10 alon ochip Rect. ochip Semi. es Inc. 1. KP acon	Value 0cm x 10cm 16A 1A 2V, 600mA	QFN48 TSSOP-20 PQFN-16 VQFN-16 SOT-363	QTY 1 16 1 2	9.000 0.000 1.620 3.600	<b>Qty 25</b> 5.000 0.000 1.480	<b>Qty 100</b> 2.700 0.000	Dist. Avalon
U1-U16         Avalon ASIC chip         AVALON         Aval           U17         USB Micro Controller         PIC16LF1459-I/SS         Micro           U18-19         1.2V, 16A Buck Step Down Regulator         IR3895         Intl. R           U20         3.3V, 1A Buck Step Down Regulator         MCP16321T-330E/NG         Micro           U21         Dual Schmitt Trigger Buffer         NL27W214DFT2G         On Se           U22,U23         1.2V, 600mA LDO Regulator         AP7217D-12YG-13         Diodes           U24         Single NOR Gate         74AUP1G02         NX           X1         Oscillator         ASDMB-32.0-LC         Abrac           Q1         N-Channel MOSFET         NDS351AN         Fairc           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mura           L3         Power Inductor         UWT1V331MNL1GS         Nichic           C4-8,C23-27,C41,C42         Ceramic Capacitor         UWT1V331MNL1GS         Nichic           C4-8,C23-27,C41,C42         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22	ochip Rect. ochip Semi. es Inc. 1. KP	1A	TSSOP-20 PQFN-16 VQFN-16 SOT-363	1 2	1.620			Avalon
U18-19         1.2V, 16A Buck Step Down Regulator         IR3895         Intl. R           U20         3.3V, 1A Buck Step Down Regulator         MCP163217-330E/NG         Micro           U21         Dual Schmitt Trigger Buffer         NL27WZ14DFT2G         On Sc           U22,U23         1.2V, 600mA LDO Regulator         AP7217D-12YG-13         Diodes           U24         Single NOR Gate         74AUP1G02         NX           X1         Oscillator         ASDMB-32-0-LC         Abrad           Q1         N-Channel MOSFET         NDS351AN         Fairci           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Murz           L3         Power Inductor         UWT1V331MNL1GS         Nichie           C4-8,C23-27,C41,C42         Ceramic Capacitor         UWT1V331MNL1GS         Nichie           C4-8,C23-27,C41,C42         Ceramic Capacitor         UWT1V331MNL1GS         Nichie           C3,C22         Reference Capacitor         GRM188R61C104KA01D         Murz           C16,C35         Ceramic Capacitor         VJ0603Y322MXACW1BC         Vish           C1	Rect. ochip Semi. es Inc. 1. KP acon	1A	PQFN-16 VQFN-16 SOT-363	2		1.480		
U20         3.3V, 1A Buck Step Down Regulator         MCP16321T-330E/NG         Micror           U21         Dual Schmitt Trigger Buffer         NL27W214DFT2G         On Se           U22,U23         1.2V, 600mA LDO Regulator         AP7217D-12YG-13         Diodes           U24         Single NOR Gate         74AUP1G02         NX           X1         Oscillator         ASDMB-32.0-LC         Abrac           Q1         N-Channel MOSFET         NDS351AN         Faircl           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mura           L3         Power Inductor         MLP2016S4R7M         TDI           C4-8,C23-27,C41,C42         Ceramic Capacitor         UWT1V331MNL1GS         Nichic           C4-8,C23-27,C41,C42         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         VJ0603Y322KACW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C2,C2	ochip Semi. es Inc. 1. KP acon	1A	VQFN-16 SOT-363		3.600		1.340	Microchip
U20         3.3V, 1A Buck Step Down Regulator         MCP16321T-330E/NG         Micror           U21         Dual Schmitt Trigger Buffer         NL27W214DFT2G         On Se           U22,U23         1.2V, 600mA LDO Regulator         AP7217D-12YG-13         Diodes           U24         Single NOR Gate         74AUP1G02         NX           X1         Oscillator         ASDMB-32.0-LC         Abrac           Q1         N-Channel MOSFET         NDS351AN         Faircl           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mura           L3         Power Inductor         MLP2016S4R7M         TDI           C4-8,C23-27,C41,C42         Ceramic Capacitor         UWT1V331MNL1GS         Nichic           C4-8,C23-27,C41,C42         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         VJ0603Y322KACW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C2,C2	ochip Semi. es Inc. 1. KP acon	1A	VQFN-16 SOT-363			2.870	2.370	Mouser .
U21         Dual Schmitt Trigger Buffer         NL27WZ14DFT2G         On Set           U22,U23         1,2V, 600mA LDO Regulator         AP7217D-12YG-13         Diodes           U24         Single NOR Gate         74AUP1G02         NX           X1         Oscillator         ASDMB-32.0-LC         Abrac           Q1         N-Channel MOSFET         NDS351AN         Fairc           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor         MLP2016S4R7M         TDI           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichit           C4-8,C23-27,C41,C42         Ceramic Capacitor         UWT1V331MNL1GS         Nichit           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM1885C1H101JA01D         Mura           C18,C37         Ceramic Capacitor         VJ0603Y322KXACW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C303Y221MXJCW1BC         Vish           C2,C21         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20	es Inc. 1. KP acon	2V, 600mA			1.550	1.290	1.180	Microchip
U22,U23         1.2V, 600mA LDO Regulator         AP7217D-12YG-13         Diodes           U24         Single NOR Gate         74AUP1G02         NXI           X1         Oscillator         ASDMB-32.0-LC         Abrac           Q1         N-Channel MOSFET         NDS351AN         Faircl           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mura           L3         Power Inductor         MLP2016S4R7M         TDI           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichie           C4-8,C23-27,C41,C42         Ceramic Capacitor         UWT1V331MNL1GS         Nichie           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM188R61L101JA01D         Mura           C16,C35         Ceramic Capacitor         VJ0603Y321MXJCW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X7S0J476M         TDI           C17,C36         <	es Inc. 1. KP acon	2V, 600mA		1	0.440	0.260	0.208	Mouser
U24         Single NOR Gate         74AUP1G02         NXI           X1         Oscillator         ASDMB-32.0-LC         Abrac           Q1         N-Channel MOSFET         NDS351AN         Faircl           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mure           L3         Power Inductor         MLP2016S4R7M         TDI           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichie           C4-8,C23-27,C41,C42         Ceramic Capacitor         0805X106K6R3CT         Wals           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mure           C3,C22         Reference Capacitor         GRM188R61C104KA01D         Mure           C16,C35         Ceramic Capacitor         VJ0603Y323KXACW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mure           C1,C20         C	KP acon	,	SOT-89-3L	2	0.490	0.360	0.309	Digikey
X1         Oscillator         ASDMB-32.0-LC         Abrace           Q1         N-Channel MOSFET         NDS351AN         Fairco           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mura           L3         Power Inductor         MLP2016S4R7M         TD           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichic           C4-8,C23-27,C41,C42         Ceramic Capacitor         0805X106K6R3CT         Wals           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM1885C1H101JA01D         Mura           C18,C35         Ceramic Capacitor         VJ0603Y32XKACW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         VJ0603Y32XKACW1BC         Vish           C2,C21         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38	acon		SOT-353	1	0.140	0.132	0.124	Mouser
Q1         N-Channel MOSFET         NDS351AN         Faircd           D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMS1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mura           L3         Power Inductor         MLP2016S4R7M         TDI           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichie           C4-8,C23-27,C41,C42         Ceramic Capacitor         0805X106K6R3CT         Wals           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM188SC1H101JA01D         Mura           C16,C35         Ceramic Capacitor         VJ0603Y323KXACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X750J476M         TDI           C17,C36         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,		32MHz	OFN4	1	1.690	1.430	1.010	Digikey
D1         Red LED (Data)         VLMS1300-GS08         Vish           D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mura           L3         Power Inductor         MLP2016S4R7M         TDI           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichie           C4-8,C23-27,C41,C42         Ceramic Capacitor         0805X106K6R3CT         Wals           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM188SC1H101JA01D         Mura           C16,C35         Ceramic Capacitor         VJ0603Y321MXJCW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X7S0J476M         TDI           C2,C21         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C3         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish	oa	1.4A, 30V	SSOT-3	1	0.230	0.199	0.171	Mouser
D2         Green LED (Power)         VLMG1300-GS08         Vish           L1-2         Power Inductor, Low DCR, 18A         38L361C         Mura           L3         Power Inductor         MLP2016S4R7M         TDI           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichin           C4-8,C23-27,C41,C42         Ceramic Capacitor         0805X106K6R3CT         Wals           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM1885C1H101JA01D         Mura           C16,C35         Ceramic Capacitor         VJ0603Y332KXACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X7S0J476M         TDI           C2,C21         Ceramic Capacitor         GRM188R71225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R71E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI	hav	2V, 20mA	0603	1	0.080	0.072	0.066	Mouser
L1-2 Power Inductor, Low DCR, 18A 38L361C Mura L3 Power Inductor MLP2016S4R7M TDI C19,C273 Electrolytic Capacitor UWT1V331MNL1GS Nichi C4-8,C23-27,C41,C42 Ceramic Capacitor 0805X106K6R3CT Wals C9-11,C28-30,C267 Ceramic Capacitor GRM188R61C104KA01D Mura C3,C22 Reference Capacitor GRM1885C1H101JA01D Mura C16,C35 Ceramic Capacitor VJ0603Y332KXACW1BC Vish C18,C37 Ceramic Capacitor VJ0603Y322LMXJCW1BC Vish C12-15,C31-34 Ceramic Capacitor UJ0603Y221MXJCW1BC Vish C12-15,C31-34 Ceramic Capacitor C3216X750J3476M TDI C2,C21 Ceramic Capacitor GRM188R71E103KA01J Mura C1,C20 Ceramic Capacitor GRM188R71E105KA01J Mura C1,C20 Ceramic Capacitor GRM188R61E105KA12D Mura C38 Ceramic Capacitor UJ0603Y223KXACW1BC Vish C39,C40,C268-C271 Ceramic Capacitor UJ0603Y223KXACW1BC Vish C39,C40,C268-C271 Ceramic Capacitor C1608X5R0J226M TDI C43-266 Ceramic Capacitor C1005X751A474K TDI C272 Ceramic Capacitor VJ0402Y103KXXAC Vish	,	2V, 20mA	0603	1	0.080	0.076	0.070	Mouser
L3         Power Inductor         MLP2016S4R7M         TDI           C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichit           C4-8,C23-27,C41,C42         Ceramic Capacitor         0805X106K6R3CT         Wals           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM188SC1H101JA01D         Mura           C16,C35         Ceramic Capacitor         VJ0603Y332KXACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X7S0J476M         TDI           C2,C21         Ceramic Capacitor         G1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X75L474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXAC         Vish	ildy	ZV, ZOIIIA	0003	-	0.000	0.070	0.070	Wiodaci
C19,C273         Electrolytic Capacitor         UWT1V331MNL1GS         Nichin           C4-8,C23-27,C41,C42         Ceramic Capacitor         0805X106K6R3CT         Wals           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mure           C3,C22         Reference Capacitor         GRM1885C1H101JA01D         Mure           C16,C35         Ceramic Capacitor         VJ0603Y32XKACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X7S0J476M         TDI           C2,C21         Ceramic Capacitor         GRM188R71225M         TDI           C1,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X75L4474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		0.360uH	10x10	2	1.620	1.290	1.140	Mouser
C4-8,C23-27,C41,C42         Ceramic Capacitor         0805X106K6R3CT         Wals           C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Murc           C3,C22         Reference Capacitor         GRM1885C1H101JA01D         Murc           C16,C35         Ceramic Capacitor         VJ0603Y322KXACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X750JJ476M         TDI           C2,C21         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Murc           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Murc           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X751A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXAC         Vish	OK	4.7uH	0806	1	0.290	0.273	0.236	Mouser
C9-11,C28-30,C267         Ceramic Capacitor         GRM188R61C104KA01D         Mura           C3,C22         Reference Capacitor         GRM1885C1H101JA01D         Mura           C16,C35         Ceramic Capacitor         VJ0603Y332KXACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X7S0J476M         TDI           C2,C21         Ceramic Capacitor         G1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X75LA47M         TDI           C43-266         Ceramic Capacitor         C1005X75LA474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXAC         Vish	icon	330uF	10x10	2	0.165	0.156	0.147	ES
C3,C22         Reference Capacitor         GRM1885C1H101JA01D         Mura           C16,C35         Ceramic Capacitor         VJ0603Y322KXACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y3221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X750J476M         TDI           C2,C21         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X751A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish	lsin	10uF	0805	12	0.031	0.031	0.028	ES
C3,C22         Reference Capacitor         GRM1885C1H101JA01D         Mura           C16,C35         Ceramic Capacitor         VJ0603Y322KXACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y3221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X750J476M         TDI           C2,C21         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X751A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish	rata	0.1uF	0603	7	0.100	0.015	0.014	Mouser
C16,C35         Ceramic Capacitor         VJ0603Y332KXACW1BC         Vish           C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X7S0J476M         TDI           C2,C21         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X751A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		100pF	0603	2	0.250	0.034	0.024	Mouser
C18,C37         Ceramic Capacitor         VJ0603Y221MXJCW1BC         Vish           C12-15,C31-34         Ceramic Capacitor         C3216X750J476M         TDI           C2,C21         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X75LA474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		3300pF	0603	2	0.060	0.050	0.040	Mouser
C12-15,C31-34         Ceramic Capacitor         C3216X7S0J476M         TDI           C2,C21         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X75L4474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish	,	220pF	0603	2	0.060	0.040	0.032	Mouser
C2,C21         Ceramic Capacitor         C1608X5R1V225M         TDI           C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X751A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		47uF	1206	8	0.470	0.330	0.300	Mouser
C17,C36         Ceramic Capacitor         GRM188R71E103KA01J         Mura           C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X75LA474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		2.2uF	0603	2	0.090	0.061	0.055	Mouser
C1,C20         Ceramic Capacitor         GRM188R61E105KA12D         Mura           C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X751A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		10nF	0603	2	0.200	0.027	0.018	Mouser
C38         Ceramic Capacitor         VJ0603Y223KXACW1BC         Vish           C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X7S1A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		1.0uF	0603	2	0.110	0.045	0.032	Mouser
C39,C40,C268-C271         Ceramic Capacitor         C1608X5R0J226M         TDI           C43-266         Ceramic Capacitor         C1005X7S1A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		22nF	0603	1	0.080	0.060	0.050	Mouser
C43-266         Ceramic Capacitor         C1005X7S1A474K         TDI           C272         Ceramic Capacitor         VJ0402Y103KXXAC         Vish		22uF	0603	6	0.150	0.000	0.106	Mouser
C272 Ceramic Capacitor VJ0402Y103KXXAC Vish		0.47uF	0402	192	0.020	0.017	0.015	Mouser
		0.01uF	0402	1	0.025	0.016	0.015	Mouser
	,	30pF	0402	1	0.250	0.034	0.013	Mouser
		·						
R8,R18 Thick Film Resistor ERJ-3EKF1781V Panas		1.78K 1%	0603	2	0.070	0.020	0.003	Mouser
R5,R9,R15,R19 Thick Film Resistor ERJ-3EKF4021V Panas		4.02K 1%	0603	4	0.070	0.020	0.003	Mouser
R7,R17,R10,R20 Thick Film Resistor ERJ-3EKF2871V Panas		2.87K 1%	0603	4	0.070	0.020	0.003	Mouser
R6,R16,R22,R43-44,R47 Thick Film Resistor ERJ-3EKF1000V Panas		100 1%	0603	6	0.070	0.020	0.003	Mouser
R1,R11 Thick Film Resistor ERJ-3EKF3922V Panas		39.2K 1%	0603	2	0.070	0.020	0.003	Mouser
R3-4,R13-14 Thick Film Resistor ERJ-3EKF4992V Panas		49.9K 1%	0603	4	0.070	0.020	0.003	Mouser
R2,R12 Thick Film Resistor ERJ-3EKF7501V Panas		7.5K 1%	0603	2	0.070	0.020	0.003	Mouser
R21 Thick Film Resistor ERJ-3EKF1002V Panas		10K 1%	0603	1	0.070	0.020	0.003	Mouser
R23,R42 Thick Film Resistor ERJ-3EKF1001V Panas		1K 1%	0603	2	0.070	0.020	0.003	Mouser
R24,R25 Thick Film Resistor ERJ-3EKF2201V Panas		2.2K 1%	0603	2	0.070	0.020	0.003	Mouser
R26-41,R45,R46 Thick Film Resistor ERJ-2RKF1003X Panas	sonic	100K	0402	18	0.070	0.020	0.003	Mouser
RT Thermistor NCP15XW222J03RC Mura	rata	2.2K 5%	0402	1	0.270	0.127	0.085	Mouser
J1 Power Connector, MiniFitJr, PCIe 45718-0002 Mole	lex 6	Spin, 4.2mm	Thru-Hole	1	0.960	0.800	0.737	Mouser
J1 Alternate: Phoenix Terminal 2 pin 1770885 Phoe		6A, 2.5mm	SMD RA	0	0.430	0.390	0.350	Mouser
J2 Micro USB Connector, Type B 10033526-N3212MLF FC		5pin	SMD	1	0.450	0.430	0.390	Mouser
J3,J5 Pin Headers, SMD 4 pin Vertical 10987 4UCC		2pin, 2.54mm	Vertical SMD	4	0.089	0.089	0.089	4UCONN
J4 Pin Header SMD, RA mount (FAN) 11182 4UCC	ONN 3 p	pin, 2.54mm	RA SMD	1	0.037	0.037	0.037	4UCONN
				327	43.70	29.96	23.63	

 SMD
 300

 QFN
 20

 Fine-Pitch
 1

 Thru-Hole
 1

 Manual SMD
 5