

Description	Use	# on	DS Lbl	PCB Lbl	Part #	Value	Package	SMT/THRU	MFR Part #	MFR	Supplier	Cost Each	Qty Order	Total Cost	In Stock	Datasheet
<b>Rectifier</b>																
RECT BRIDGE GPP 6A 400V GBU	Rectifier Bridge	1				GBUGG-BPMS-ND	GBU	SMT			Micro C Digikey	\$	1.40	\$	-	<a href="http://61.222.192.61/mccsemi/up_pdf/GBU6A-GBUGM%28GBU%29.pdf">http://61.222.192.61/mccsemi/up_pdf/GBU6A-GBUGM%28GBU%29.pdf</a>
<b>Flyback Stage</b>																
22/16 Ferrite 970um gap	Inductor Core	1									Ferroxcube	\$		\$	-	
Coupled Inductor Primary Windings	Primary Inductor Winding	-				#22 AWG	-	-				\$		\$	-	
Coupled Inductor Secondary Windings	Secondary Inductor Winding	-				#16 AWG	-	-				\$		\$	-	
DIODE SCHOTTKY 30V 40A D2PAK	Flyback Diode	1				MBR8403C	-	D2PAK	SMT		MBR8403C ON Sem	\$	3.31	\$	- 0	<a href="http://www.onsemi.com/pub_link/Collateral/MBR84030-D.PDF">http://www.onsemi.com/pub_link/Collateral/MBR84030-D.PDF</a>
	Flyback Output Capacitance															
MOSFET N-CH 200V 31A D2PAK	Flyback MOSFET	1				FQB34N20	Rdson: 75m	D2PAK	SMT		FQB34N20 Fairchil	\$	2.37	\$	- 0	<a href="http://www.fairchildsemi.com/ds/FQ/FQB34N20L.pdf">http://www.fairchildsemi.com/ds/FQ/FQB34N20L.pdf</a>
	Snubber Diode	1														
	Snubber Capacitor	1														
	Snubber Resistor	1														
	Heatsink	1				CHF1206CNT500LW-ND										
IC HIGH SIDE DRIVER SGL 8-DIP	Flyback HS Gate Driver	1				IR2117PBF	ND	8-DIP	THRU		IR2117PBF Interna	\$	3.30	\$	- 0	<a href="http://www.irf.com/product-info/datasheets/data/ir2117.pdf">http://www.irf.com/product-info/datasheets/data/ir2117.pdf</a>
IC MOSFET DRIVER 1CHAN 8SOIC	Flyback HS Gate Driver	1				IR2117SPBF	ND	8-SOIC	SMT		IR2117PBF Interna	\$	3.25	\$	- 0	<a href="http://www.irf.com/product-info/datasheets/data/ir2117.pdf">http://www.irf.com/product-info/datasheets/data/ir2117.pdf</a>
CAP CER 1UF 50V 10% X7R 1206	Bootstrap Capacitor	2				PCC2478C	1 uF	1206	SMT		ECJ-3YX1H Panaso	\$	0.79	\$	- 0	<a href="http://media.digikey.com/pdf/Data%20Sheets/Panasonic%20Capacitors%20PDFs/ECJ%28HighCapacitance%29.pdf">http://media.digikey.com/pdf/Data%20Sheets/Panasonic%20Capacitors%20PDFs/ECJ%28HighCapacitance%29.pdf</a>
DIODE GEN PURPOSE 50V 1A DO41	Bootstrap Diode	1				1N4001FSTR	ND	DO-41	THRU		1N4001 Fairchil	\$	0.32	\$	- 0	<a href="http://www.fairchildsemi.com/ds/1N/1N4001.pdf">http://www.fairchildsemi.com/ds/1N/1N4001.pdf</a>
DIODE GEN PURPOSE 50V 1A SMA	Bootstrap Diode	1				S1AFSCT	ND	SMA	SMT		S1A Fairchil	\$	0.53	\$	- 0	<a href="http://www.fairchildsemi.com/ds/S1/S1A.pdf">http://www.fairchildsemi.com/ds/S1/S1A.pdf</a>
RESISTOR 2.7 OHM 1/4W 5% 1206	Gare Current Limiting Resistor	1				P2.7ECT-NI	2.7 Ohm	1206	SMT		ERJ-8GEYJ2 Panaso	\$	0.06	\$	-	
	Filter Capacitance	1														
IC PFC CTRLR TRANSITION 8SOIC	Flyback PFC Controller	1				296-15225	-5-ND	8-SOIC	SMT		UCC38051 Texas Ir	\$	2.33	\$	- 0	<a href="http://www.ti.com/lit/ds/symlink/ucc38051.pdf">http://www.ti.com/lit/ds/symlink/ucc38051.pdf</a>
IC PFC CTRLR TRANSITION 8DIP	Flyback PFC Controller	1				296-15226	-5-ND	8-DIP	THRU		UCC38051 Texas Ir	\$	2.48	\$	- 0	<a href="http://www.ti.com/lit/ds/symlink/ucc38051.pdf">http://www.ti.com/lit/ds/symlink/ucc38051.pdf</a>
<b>DESIGN SMALL COMPONENTS</b>																
			R1											\$	-	
			R2											\$	-	
			R3											\$	-	
			R4											\$	-	
			R5											\$	-	
			R6											\$	-	
			R7											\$	-	
			R8											\$	-	
			R9											\$	-	
			R10											\$	-	
	Duty ratio resistor													\$	-	
	Frequency Resistor													\$	-	
<b>Low Power Buck Stage</b>																
IC BUCK ADJ 5A 850	Low Power Buck Converter	1				296-23750	-	8-SOIC PP	SMT		TPS5450 Texas Ir	\$	7.00	\$	- 0	<a href="http://www.ti.com/lit/ds/symlink/tps5450.pdf">http://www.ti.com/lit/ds/symlink/tps5450.pdf</a>
CAP CER 4.7UF 50V 10% X7R 1206	Input Decoupling Capacitance	2				445-8032	4.7 uF	1206	SMT		C321607R TOK Co	\$	0.94	\$	- 0	<a href="http://www.tdk.com/pdf/general_R11.pdf">http://www.tdk.com/pdf/general_R11.pdf</a>
CAP CER 10000PF 50V 10% X7R 1206	Bootstrap Capacitor	1				490-1774	0.01 uF	1206	SMT		GRM319R7 Murata	\$	0.09	\$	- 0	<a href="http://www.murata.com/products/catalog/pdf/c02e.pdf">http://www.murata.com/products/catalog/pdf/c02e.pdf</a>
DIODE SCHOTTKY 30V 40A D2PAK	Low Side Switch	1				MBR8403C	-	D2PAK	SMT		MBR8403C ON Sem	\$	3.31	\$	- 0	<a href="http://www.onsemi.com/pub_link/Collateral/MBR84030-D.PDF">http://www.onsemi.com/pub_link/Collateral/MBR84030-D.PDF</a>
RES 10.0K OHM 1/4W 1% 1206 SMD	VSENSE Divider Top	1				P10.0KFCT	10kOhm	1206	SMT		ERJ-8ENF11 Panaso	\$	0.06	\$	- 0	<a href="http://industrial.panasonic.com/www-ctl/fccr13pz.gr7E+P2+3+AQAD0001+ERJ8GEV105V+7+WWW">http://industrial.panasonic.com/www-ctl/fccr13pz.gr7E+P2+3+AQAD0001+ERJ8GEV105V+7+WWW</a>
RES 2.4K OHM 1/4W 5% 1206 SMD	VSENSE Divider Bottom	1				P2.4KECT	2.4kOhm	1206	SMT		ERJ-8GEYJ2 Panaso	\$	0.06	\$	- 0	<a href="http://industrial.panasonic.com/www-ctl/fccr13pz.gr7E+P2+3+AQAD0001+ERJ8GEV105V+7+WWW">http://industrial.panasonic.com/www-ctl/fccr13pz.gr7E+P2+3+AQAD0001+ERJ8GEV105V+7+WWW</a>
	Inductor	1									CoilCraft			\$	-	
	Output Capacitance	1												\$	-	
<b>High Power Buck Stage</b>																
IC NON-SYNC V-MODE CTRLR 8-SOIC	High Power Buck Controller	1				296-23024	-1-ND	8-SOIC	SMT		TPS540200 Texas Ir	\$	3.15	\$	- 0	<a href="http://www.ti.com/lit/ds/symlink/tps540200.pdf">http://www.ti.com/lit/ds/symlink/tps540200.pdf</a>
MOSFET N-CH 200V 31A D2PAK	High Side Switch	1				FQB34N20	Rdson: 75m	D2PAK	SMT		FQB34N20 Fairchil	\$	2.37	\$	- 0	<a href="http://www.fairchildsemi.com/ds/FQ/FQB34N20L.pdf">http://www.fairchildsemi.com/ds/FQ/FQB34N20L.pdf</a>
DIODE SCHOTTKY 30V 40A D2PAK	Low Side Switch	1				MBR8403C	-	D2PAK	SMT		MBR8403C ON Sem	\$	3.31	\$	- 0	<a href="http://www.onsemi.com/pub_link/Collateral/MBR84030-D.PDF">http://www.onsemi.com/pub_link/Collateral/MBR84030-D.PDF</a>
	Frequency Set Resistance	1														
	Frequency Set Capacitance	1														
	Soft-Start Capacitance	1														
	Current Limit Capacitance	1														
	Current Limit Scale Resistance 1	1												\$	-	
	Current Limit Scale Resistance 2	1												\$	-	
	Current Limit Sense Resistor	1														
	Inductor	1														
	Output Capacitance	1														
<b>Output</b>																
CONN RCPT USB 3.0 STD A BLUE	Female USB Connector	2				A101494-N	-	USB 3.0	-		1932258-1 TE Con	\$	1.81	\$	-	
USB 3.0 Male		2												\$	-	
Banana Plugs Female		4												\$	-	
Banana Plugs Male		4												\$	-	
AC Outlet		1												\$	-	
<b>Miscellaneous</b>																
PCB		2										\$	33.00	\$	-	
Wall outlet box		1												\$	-	
Faceplate		1												\$	-	
2x4		1												\$	-	
Drywall														\$	-	
Conduit														\$	-	
Electrical tape														\$	-	
Breadboard		1												\$	-	
Wire kit		1												\$	-	
Test Points		10												\$	-	
<b>Start-Up Power</b>																
														\$	-	
														\$	-	
												\$	75.24	\$	-	