BUCHLA MINI-BUS BOM REV1

RESISTORS									
VALUE	**QTY**	**REFDES**	**PKG**	**MFR**	**PART#**	**NOTE**	**COST @ 1**	**LINK**	
1Ω	1	R3	1/4W		CFR-25JB-52-1R	1/4W, 5% or better	0.1	MOUSER	
1K	2	R1,2	1/4W		CFR-25JT-52-1K	1/4W, 5% or better	0.1	MOUSER	
CAPACITORS									
VALUE	**QTY**	**REFDES**	**PKG**	**MFR**	**PART#**	**NOTE**	**COST @ 1**	**LINK**	
220uF 25V electrolytic	1	C6	8mm dia x 11mm H, 3.5mm pin spacing	KEMET	ESW227M025AG3AA		0.36	MOUSER	
100uF 25V electrolytic	2	C4,9	6.3mm dia x 11mm H, 2.5mm pin spacing	RUBYCON	35ZLH100MEFC6.3X11		0.3	MOUSER	
22uF 16V electrolytic	1	C1	5mm dia x 11mm H, 2.5mm pin spacing	PANASONIC	ECA-1CM220I		0.17	MOUSER	
100nF ceramic	5	C2,7,8,5,10	2.5mm pin spacing	VISHAY	K104K15X7RF53K2		0.13	MOUSER	
INDUCTORS									
VALUE	**QTY**	**REFDES**	**PKG**	**MFR**	**PART#**	**NOTE**	**COST @ 1**	**LINK**	
1uH, 4A	3	L1,4,5	9.5mm x 4mm	TDK	B78108E1102K000	4.15A, 38mΩ	0.45	MOUSER	
68uH INDUCTOR	1	L2	22.86 x 11.55mm	DELEVAN	4590R-683K	3.3A, 59mΩ	4.14	MOUSER	
(CHOOSE ONE)	...	...	22.9 x 11.4mm	ABRACON	AIAP-03-680K	3.3A, 47mΩ	1.44	MOUSER	
SEMICONDUCTORS									
VALUE	**QTY**	**REFDES**	**PKG**	**MFR**	**PART#**	**NOTE**	**COST @ 1**	**LINK**	
DCDC CONVERTER	1	U2	~1" x 1" x .4"	MEANWELL	DKMW30F-15	30W +/- 15V @ 1A, POS. LOGIC	$35	MOUSER	OCTOPART
(CHOOSE ONE)	...	...	...	DELTA	S24DE15001PDFA	...	$41	MOUSER	OCTOPART
	...	...	...	XP Power	JCM3012D15	...	$41	MOUSER	OCTOPART
	...	...	...	Recom	RPA30-2415DAW/P	...	$44	MOUSER	OCTOPART
	...	...	...	CUI	PDQ30-Q24-D15-D	...	35$	MOUSER	OCTOPART
	...	...	...	TDK	CCG302415D	NOTE: NEGATIVE LOGIC. SEE BUILD NOTES.	34$	MOUSER	OCTOPART
	...	...	...	CINCON	EC5SBW-24D15	...	$38	-	OCTOPART
5V DCDC CONVERTER	1	U1	11.6 x 10.5 x 8.4mm	RECOM	R-78E5.0-0.5	500mA	2.7	MOUSER	OCTOPART
(CHOOSE ONE)	...	...	...	RECOM	R-78E5.0-1.0	1A	3.26	MOUSER	OCTOPART
	...	...	11.6 x 10.5 x 8.4mm	CUI	P78A05-1000	1A	4.9	MOUSER	OCTOPART
	...	...	...	CUI	P78A05-0500	500mA	4.47	MOUSER	OCTOPART
	...	...	16.5 x 10.4 x 8.6mm	OKI/ MURATA	OKI-78SR-5/1.5-W36H-C	1.5A, low-ripple.	4.3	MOUSER	OCTOPART
	...	...	16.5 x 10.4 x 8.6mm	OKI/ MURATA	OKI-78SR-5/1.5-W36HE-C	1.5A, low-ripple. Insulated.	5.9	-	OCTOPART
	...	...	11 x 10 x 8mm	TI	TPSM84205EAB	1.5A, low ripple. NOTE: pins must be removed and replaced to mc	5.43	MOUSER	OCTOPART
DIGIKEY SEARCH LINK:		DIGIKEY DC CONVERTERS							
MOUSER SEARCH LINK:		MOUSER DC CONVERTERS							
Schottky Diode	1	D1		ON SEMI	SB130	Schottky, 1A, 500mV Vf @ 1A	0.37	MOUSER	
ELECTROMECH									
VALUE	**QTY**	**REFDES**	**PKG**	**MFR**	**PART#**		**COST @ 1**	**LINK**	
12V CONNECT HEADER	1 (OPTIONAL)	...	...	MOLEX	39-30-1040 / 0039301040	Mini Fit Jr. connector, 4 pin 2 row, right angle.	0.72	MOUSER	MOLEX
	1 (OPTIONAL)	...	150mm long	MOLEX	45135-0401	Mini Fit TPA2 Cable assembly. Optional. 150mm.	3.29	MOUSER	NEWARK SALE
	1 (OPTIONAL)	...	300mm long	MOLEX	45135-0403	Mini Fit TPA2 Cable assembly. Optional. 300mm.	3.64	MOUSER	
(..OR..)	2 (OPTIONAL)	...	...	FASTON	928814-1	blade connects, alternative power connects.	0.24	MOUSER	
	2 (OPTIONAL)	...	...	FASTON	42599-2	Blade crimp on connects	0.33	MOUSER	
FUSE	1 (OPTIONAL)	...	2AG 5 x 15mm	LITTELFUSE	0229004.HXP	4A, SLOW BLOW	0.72	MOUSER	
INLINE FUSE HOLDER	1 (OPTIONAL)	...	...	LITTELFUSE	01500274ZXU	16AWG INLINE	2.12	MOUSER	
THERMAL ADHESIVE PAD	1 (OPTIONAL)	...	1"X1"	...	...	thermally conductive 1" adhesive pad. Optional.	...	AMAZON	MORE...
MISC									
VALUE	**QTY**	**REFDES**	**PKG**	**MFR**	**PART#**		**COST @ 1**	**LINK**	
12V AC/DC adapter	1	...	...	MEANWELL	GSM60A12-P1J	12V, >4A (50W), 2.1/2.5mm barrel connector, (+)Pos tip.	24.66	MOUSER	
(CHOOSE ONE)	...	...	...	CINCON	TRH70A120-11E01-Level-VI	...	23	MOUSER	
NOTE, THERE ARE MANY OPTIONS FOR THIS PART. ONE EXAMPLE PROVIDED HERE.								MOUSER AC/DC ADAPTERS	
it is advisable to get an **IEC Class 1 power supply with 3-prong AC inlet and *direct* earth ground connection to output. Some of these devices have an isolated ouptut. **Meanwell GSM_** or **Cincon TRH_A** series are good optipons.**									
DC barrel jack	1	...	...	...	...	2.1/ 2.5mm (check 12V AC/DC convertor.)	...	...SOMETHING LIKE....	
Switch	1 (OPTIONAL)	...	...	...	...	...	...	...	