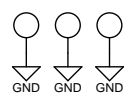
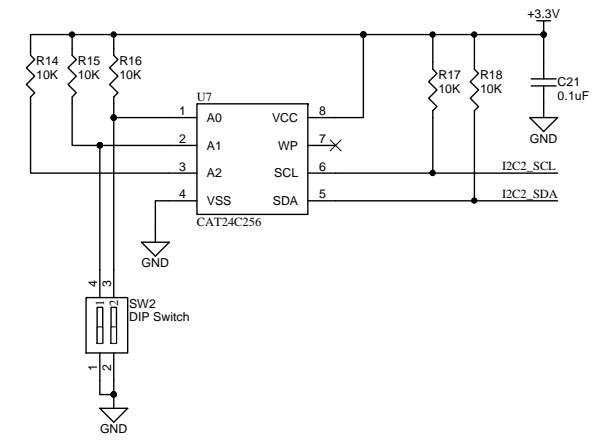
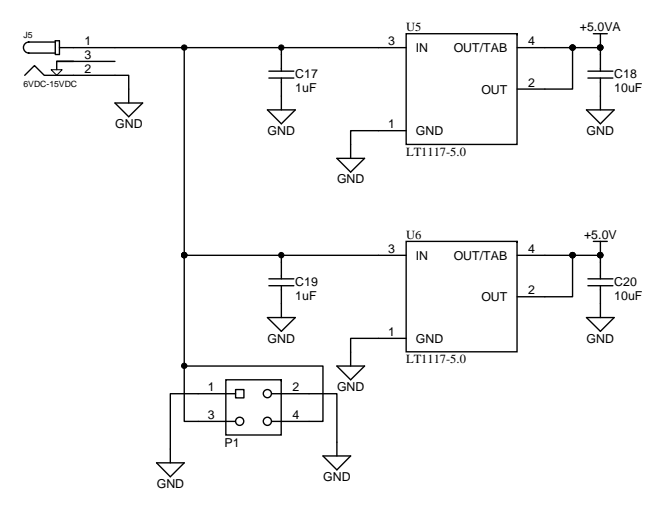
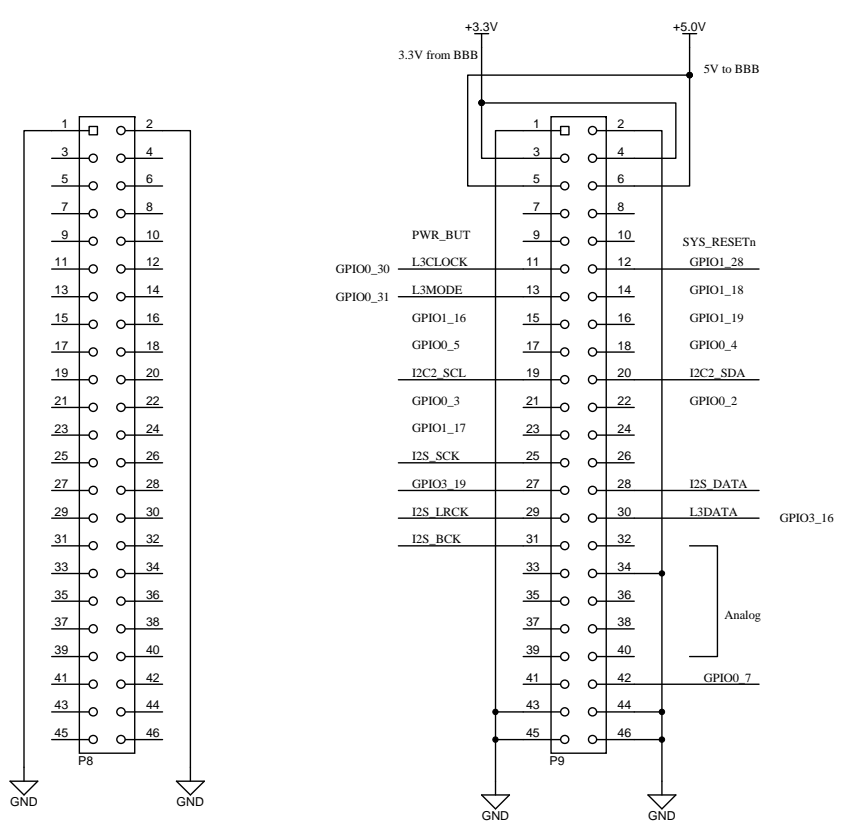


For L3 programming
 No Load SW1, R3, R4, R5, R6, R7
 Install R9 as 0 ohm
 Install R11,R12,R13 as 0 ohm

For HW setting
 Install SW1, R3, R4, R5, R6, R7
 No Load R9, R11,R12,R13

Title LED			* Bob Alkire Ferndale WA
Size: B	Number: 2	Revision: 1.0	
Date: 2/6/2014	Time: 10:31:28 AM	Sheet 2 of 3	



Title LED			* Bob Alkire Ferndale, WA *
Size: B	Number: 2	Revision: 1.0	
Date: 2/6/2014	Time: 10:33:30 AM	Sheet 2 of 3	

Bill Of Materials

Title	Audio BBB by Bob Alkire 10/13/2013
Date	2/6/2014
Production Quantity	1
Currency	USD

Quantity	Designator	Comment	Description	Footprint	Package	Manufacturer	MFG Part Number	Supplier 1	Supplier Part Number 1	Supplier Unit Price 1	Supplier Subtotal 1	Notes
1	6	C1, C6, C11, C14, C16, C21	0.1uF	Ceramic Capacitor SMD	0603	0603 (1608 Metric)	Yageo	CC0603KRX7R9BB104	Digi-Key	311-1344-1-ND	\$0.03	\$0.27
2	4	C2, C3, C8, C9	1uF	Electrolytic Capacitor	P0805	0805 (2012 Metric)	Panasonic Electronic Components	ECS-T1AZ105R	Digi-Key	PCS2105CCT-ND	\$0.43	\$1.72
3	2	C4, C12	2.2uF	Electrolytic Capacitor	P1206	1206 (3216 Metric)	Kemet	T491A225K016AT	Digi-Key	399-3691-1-ND	\$0.34	\$0.68
4	3	C5, C18, C20	10uF	Ceramic Capacitor SMD	1206	1206 (3216 Metric)	TDK Corporation	C3216X7R1E106K160AB	Digi-Key	445-7705-1-ND	\$0.63	\$1.89
5	2	C10, C13	10uF	Electrolytic Capacitor	P1206	1206 (3216 Metric)	Nichicon	F931A106MAA	Digi-Key	493-2351-1-ND	\$0.32	\$0.64
6	2	C17, C19	1uF	Ceramic Capacitor SMD	0805	0805 (2012 Metric)	Samsung Electro-Mechanics America, Inc	CL21B105KBFNNNE	Digi-Key	1276-1029-1-ND	\$0.10	\$0.20
7	1	FB1	600	Ferrite Bead	0603	0603 (1608 Metric)	Murata Electronics North America	BLM18AG601SN1D	Digi-Key	490-1014-1-ND	\$0.10	\$0.10
8	1	J1	RIGHT	2-pin Single Row Header	1X2_HDR_2MMRA		Molex	53015-0210	Mouser	538-53015-0210	\$0.46	\$0.46
9	2	J2, J4	Jack	2-pin Jack			Molex Inc	0510040200	Digi-Key	WM18951-ND	\$0.28	\$0.56
10	1	J3	LEFT	2-pin Single Row Header	1X2_HDR_2MMRA		Molex	53015-0210	Mouser	538-53015-0210	\$0.46	\$0.46
11	1	J5	6VDC-15VDC	DC Power Jack	PJ-102		CUI Inc	PJ-065B	Digi-Key	CP-065B-ND	\$2.29	\$2.29
12	2	LS1, LS2	Speaker	Loudspeaker	PIN2		CUI Inc	CMS0201KLX	Digi-Key	102-1299-ND	\$7.22	\$14.44
13	1	P1	2X2	4-pin Dual Row Header	2X2_2.54		3M Electronic Solutions Division	960204-6303-AR	Mouser	517-9602046303AR	\$0.69	\$0.69
14	2	P8, P9	2X23	46-pin Dual Row Header	2X23_HDR		Samtec Inc	SSQ-123-03-T-D	Digi-Key	SAM1204-23-ND	\$4.95	\$9.90
15	4	R1, R2, R8, R10	20K	Resistor SMD	0603	0603 (1608 Metric)	Panasonic Electronic Components	ERJ-3EKF2002V	Digi-Key	P20.0KHCT-ND	\$0.10	\$0.40
16	10	R3, R4, R5, R6, R7, R14, R15, R16, R17, R18	10K	Resistor SMD	0603	0603 (1608 Metric)	Panasonic Electronic Components	ERJ-3EKF1002V	Digi-Key	P10.0KHCT-ND	\$0.02	\$0.75
17	3	R11, R12, R13	0	Resistor SMD	0603	0603 (1608 Metric)	Panasonic Electronic Components	ERJ-3GEY0R00V	Digi-Key	P0.0GCT-ND	\$0.10	\$0.30
18	1	R23	33	Resistor SMD	0603	0603 (1608 Metric)	Panasonic Electronic Components	ERJ-3GEYJ330V	Digi-Key	P33GCT-ND	\$0.10	\$0.10
19	1	SW1	DIP Switch	DIP Switch, 4 Position, SPST	SO_8W		TE Connectivity	GDH04S04	Digi-Key	450-1353-ND	\$1.58	\$1.58
20	1	SW2	DIP Switch	DIP Switch, 2 Position, SPST	DIPSW2	DIP-2	C&K Components	TDA02H0SB1	Mouser	611-TDA02H0SB1	\$2.00	\$2.00
21	2	U1, U4	LM4991	3W Audio Power Amplifier	SOIC_8	8-SOIC (0.154", 3.90mm Width)	Texas Instruments	LM4991MA/NOPB	Digi-Key	LM4991MA/NOPB-ND	\$1.61	\$3.22
22	1	U2	SN74LVC1G04	1 bit Inverter	SOT353	6-TSSOP (5 Lead), SC-88A, SOT-353	Diodes Inc	74LVC1G04SE-7	Digi-Key	74LVC1G04SE-7DICT-ND	\$0.39	\$0.39
23	1	U3	UDA1330ATS	Stereo Audio DAC	SSOP-16	16-LSSOP (0.175", 4.40mm Width)	NXP Semiconductors	UDA1330ATS/N2,112	Digi-Key	568-3442-5-ND	\$2.22	\$2.22
24	2	U5, U6	LT1117-5.0	LDO 5.0V	SOT_223	TO-261-4, TO-261AA	Diodes Inc	ZLDO1117G50TA	Digi-Key	ZLDO1117G50DICT-ND	\$0.54	\$1.08
25	1	U7	CAT24C256	256kb I2C Serial EEPROM	SOIC_8N	8-SOIC (0.154", 3.90mm Width)	ON Semiconductor	CAT24C256WI-GT3	Digi-Key	CAT24C256WI-GT3OSCT-ND	\$0.73	\$0.73

Total Cost | \$47.07