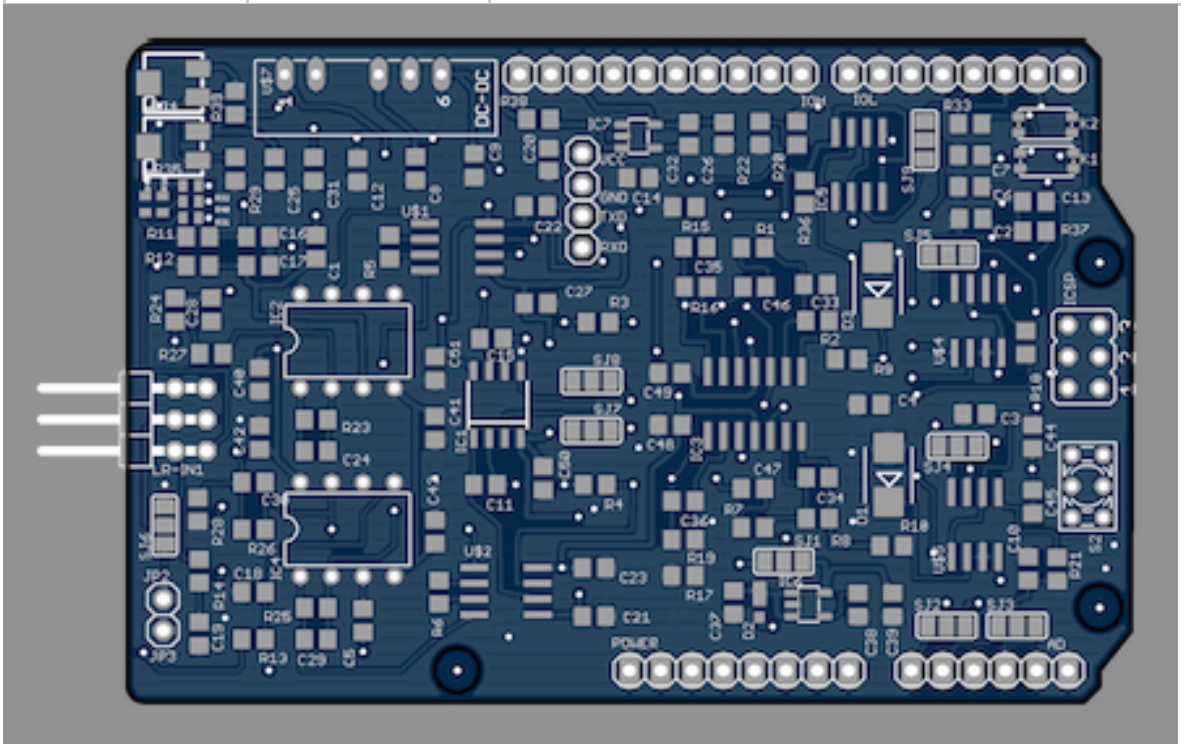
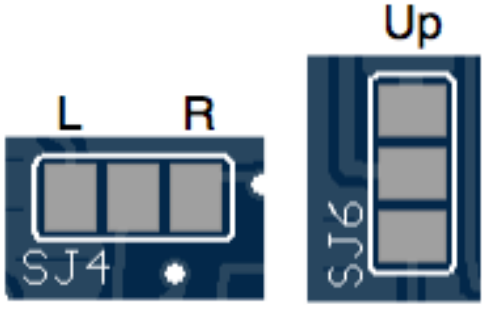
Parts List V1.0 : 27 Sep 2014				
SJ : solder jumper connection : see PCB this way.				
		L mean connect L and center, R mean connect R and center, NC mean none connection Up mean connect Up and center		





Assembly variant: solder following order recommended			http://www.digikey.com	
Part Value Package Library Position (mm) Orientation				
SJ1:1-2 :L SJ_2 jumper (64.6 26.6) R0		SJ1:1-2 :L		default : SJ1:1-2 : +5 V from Arduino, SJ1:2-3 : 5.6..15V Direct input 200mA Max
SJ2:1-2 :L SJ_2 jumper (77.8 21.4) R0		SJ2:1-2 :L		default : SJ2:1-2 when CH1:AD0, SJ2:2-3 when CH1:AD2
SJ3:1-2 :L SJ_2 jumper (83.5 21.4) R0		SJ3:1-2 :L		default : SJ3:1-2 when CH2:AD1, SJ3:2-3 when CH2:AD3
SJ4:2-3 :R SJ_2 jumper (78.7 35.9) R0		SJ4:2-3 :R		default : SJ4:2-3, when use 555 or direct clock input use port D3 : SJ4:1-2
SJ5:2-3 :R SJ_2 jumper (77.9 51.4) R0		SJ5:2-3 :R		default : SJ5:2-3, when use 555 or direct clock input use port D3 : SJ5:1-2
SJ6:1-2 :Up SJ_2 jumper (14.4 29.5) R270		SJ6:1-2 :Up		default : SJ6:1-2 : center GND, SJ6:2-3 : center test

SJ7:2-3 :L SJ_2 jumper (49 37.2) R180		SJ7:2-3 :L		default : SJ7:2-3 : Ref to GND, SJ7:1-2 : Ref to Ref V
SJ8:2-3 :L SJ_2 jumper (49 41.2) R180		SJ8:2-3 :L		default : SJ8:2-3 : Ref to GND, SJ8:1-2 : Ref to Ref V
SJ9: NC SJ_2 jumper (76 60.7) R90		SJ9: NC		default : SJ9:NC, when use 555 : SJ9:1-2, when direct clock input use port D3 : SJ9:2-3
WJ (wire jumper) 1 : IC2 : pin 1-3				default : not use Option A then need to use this wire jumper
WJ (wire jumper) 2 : IC2 : pin 5-7				default : not use Option A then need to use this wire jumper
WJ (wire jumper) 3 : IC4 pin 1-3				default : not use Option A then need to use this wire jumper
WJ (wire jumper) 4 : IC4 : pin 5-7				default : not use Option A then need to use this wire jumper
JP2 1X01 pinhead (14.3 23.5) R0		Non		default : not connect, when use test OSC : connect test OSC between JP2-JP3

JP3 1X01 pinhead (14.3 21) R0		Non		
C1 470pF 5 % C0805 rcl (26.67 52.07) R90	2	470pF	1276-1121-1-ND	C1, 5
C2 0.1μF C0805 rcl (79.75 54.32) R0	18	0.1μF	311-1361-1-ND	C2, 3, 4, 10, 12, 21, 22, 23, 27, 31, 40, 41, 42, 43, 48, 49, 50 51
C3 0.1μF C0805 rcl (80.1 38.5) R0				
C4 0.1μF C0805 rcl (71.52 39.28) R0				
C5 470pF C0805 rcl (30.48 21.79) R270				
C6 2.7nF 50V 5% (20KHz) 30ppm/degC C0805 rcl (79.7 56.9) R0	2	2.7nF	445-11340-1-ND	C6, 45
C8 10μF 25V 10% C0805 rcl (34.76 58.42) R90	6	10μF	1276-2890-1-ND	C8, 9, 14, 20, 25, 26
C9 10μF C0805 rcl (39.47 58.62) R270				

C10 0.1μF C0805 rcl (84.39 26) R270				
C11 1μF 50V 10% C0805 rcl (40.4 32.82) R0	2	1μF	1276-1029-1-ND	C11, 15
C12 0.1μF C0805 rcl (30.01 58.28) R90				
C13 15nF (+2.7nF=30Hz) 50V 5% 30ppm/degC C0805 rcl (84.9 55.7) R0	2	15nF	445-6948-1-ND	C13, 44
C14 10μF C0805 rcl (52.8 57.6) R180				
C15 1μF C0805 rcl (40.87 44.62) R0				
C16 1nF 5% C0805 rcl (21.99 52.84) R180	4	1nF	399-1136-1-ND	C16, 17, 18, 19
C17 1nF C0805 rcl (21.99 50.5) R0				
C18 1nF C0805 rcl (21.59 24.13) R0				
C19 1nF C0805 rcl (17.21 20.72) R270				

C20 10μF C0805 rcl (45.54 59.12) R90				
C21 0.1μF C0805 rcl (49.19 22.12) R0				
C22 0.1μF C0805 rcl (44.48 55.32) R180				
C23 0.1μF C0805 rcl (49.19 26.07) R180				
C25 10μF C0805 rcl (23.3 58.3) R90				
C26 10μF C0805 rcl (59.76 61.22) R90				
C27 0.1μF C0805 rcl (44.51 47.47) R0				
C31 0.1μF C0805 rcl (26.5 58.3) R90				
C32 0.01μF 10% C0805 rcl (56.9 61.2) R90	1	0.01μF	490-1664-1-ND	C32
C33 47pF 5% C0805 rcl (67.21 49.01) R0	4	47pF	709-1175-1-ND	C33, 34, 35, 36
C34 47pF C0805 rcl (67.34 33.38) R0				

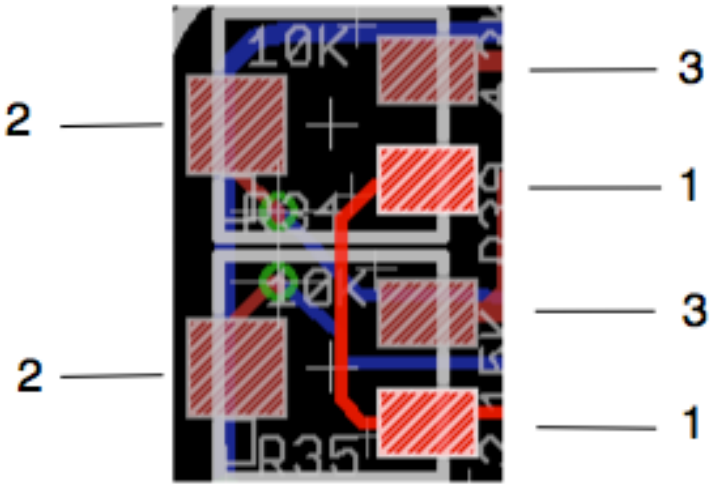
C35 47pF C0805 rcl (57.41 52.02) R180				
C36 47pF C0805 rcl (56.45 31.48) R180				
C40 0.1μF C0805 rcl (22.1 41.3) R90				
C41 0.1μF C0805 rcl (36.3 37.4) R270				
C42 0.1μF C0805 rcl (22.1 36.6) R90				
C43 0.1μF C0805 rcl (36.3 29) R90				
C44 15nF (+2.7nF=30Hz) 50V 5% 30ppm/degC C0805 rcl (84.8 36.7) R90				
C45 2.7nF 50V 5% (20KHz) 30ppm/degC C0805 rcl (84.8 31.4) R90				
C48 0.1μF C0805 rcl (55.4 37.6) R0				
C49 0.1μF C0805 rcl (55.4 41.8) R0				

C50 0.1µF C0805 rcl (45.1 33.3) R270				
C51 0.1µF C0805 rcl (36.3 42.2) R270				
R1 1M 0.1% 25ppm/degC 0.1W R0805 rcl (62.13 52) R180	8	1M	985-1364-1-ND	R1, 2, 3, 4, 7, 8, 16, 19
R2 1M 0.1% 25ppm/degC 0.1W R0805 rcl (67.31 46.1) R180				
R3 1M 0.1% 25ppm/degC 0.1W R0805 rcl (49.53 45.92) R0				
R4 1M 0.1% 25ppm/degC 0.1W R0805 rcl (49.29 32.82) R0				
R5 200 0.1% 25ppm/degC 0.1W R0805 rcl (32.65 52.07) R90	2	200 ohm	RG20P200BCT-ND	R5, 6
R6 200 0.1% 25ppm/degC 0.1W R0805 rcl (36.62 24.09) R90				

R7 1M 0.1% 25ppm/degC 0.1W R0805 rcl R180 (62.13 29.28)				
R8 1M 0.1% 25ppm/degC 0.1W R0805 rcl R180 (67.34 30.07)				
R9 4.7K 1% 0.25W R0805 rcl R0 (69.71 42.99)	6	4.7K	311-4.70KCRCT-ND	R9, 10, 11, 12, 13, 14
R10 4.7K 1% 0.25W R0805 rcl R0 (73.34 27.86)				
R11 4.7K 1% 0.25W R0805 rcl R0 (17.11 52.84)				
R12 4.7K 1% 0.25W R0805 rcl R0 (17.11 50.5)				
R13 4.7K 1% 0.25W R0805 rcl R0 (21.59 20.32)				
R14 4.7K 1% 0.25W R0805 rcl R270 (17.21 25.83)				
R15 4.02K 0.1% 25ppm/degC 0.125W R0805 rcl R180 (56.51 55.26)	2	4.02K	RG20P4.02KBCT-ND	R15, 17

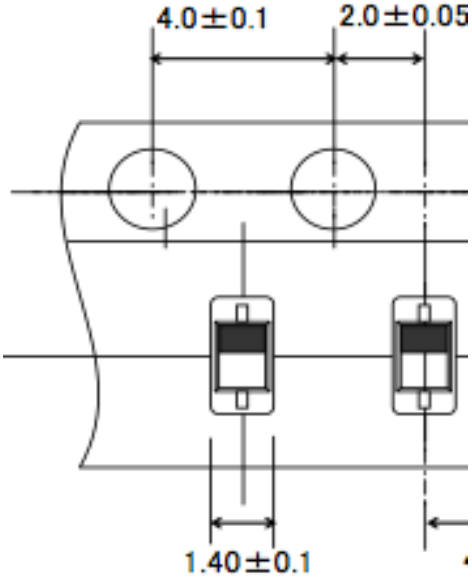
R16 1M 0.1% 25ppm/degC 0.1W R0805 rcl (57.45 48.8) R0				
R17 4.02K 0.1% 25ppm/degC 0.125W R0805 rcl (56.45 25.46) R180				
R18 470 5% 0.25W R0805 rcl (84.22 44.27) R270	4	470 ohm	P470ACT-ND	R18, 20, 21, 38
R19 1M 0.1% 25ppm/degC 0.1W R0805 rcl (56.45 28.37) R0				
R20 470 5% 0.25W R0805 rcl (65.63 61.26) R90				when use JY-MCU Bluetooth V1.0.6 then 0 ohm.
R21 470 5% 0.25W R0805 rcl (86.73 25.97) R270				
R22 1K 1% 0.25W R0805 rcl (62.65 61.26) R90	2	1K	311-1.00KCRCT-ND	R22, 33. when use JY-MCU Bletooth V1.0.6 then no need R22.

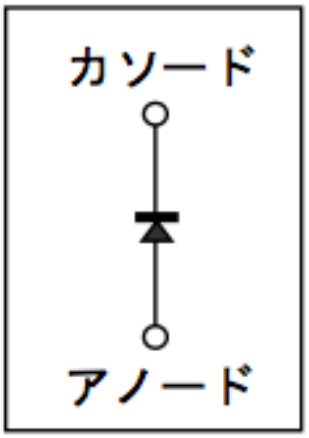
R29 2.15K 0.1% 25ppm/degC 0.125W R0805 rcl (20.1 58.3) R90	2	2.15K	A110575CT-ND	R29 & R34: 2-3
R33 1K 1% 0.25W R0805 rcl (79.71 62.03) R180				
R38 470 5% 0.25W R0805 rcl (44.7 62.4) R0				
R39 4.3K 0.1% 25ppm/degC 0.125W R0805 rcl (20.1 63.7) R90	1	4.3K	RG20P4.3KBCT-ND	R39
R 2.15K at R34: 2-3				
R 0 ohm at R34:2-1 & R35:2-1 : set 1.25V offset, 0 ohm at C46 & C47 for no DC cut	4	0 ohm	311-0.0ARCT-ND	default : R 0 ohm at R34:2-1 & R35:2-1 : set 1.25V offset, 0 ohm at C46 & C47 for no DC cut
				(R 2.15K at R34: 2-1, R 0 ohm at R34:2-3 & R35:2-3 : set 2.5V offset)



U$1 AD8422ARZ SOIC8 MKH (38.1 52.07) R270	2	AD8422ARZ	AD8422ARZ-ND	U$1, U$2
U$2 AD8422ARZ SOIC8 MKH (42.07 24.16) R270		AD8422ARZ		
IC1 OP2177ARZ SOIC8 AD (41.37 39.27) R0	1	OP2177ARZ	OP2177ARZ-ND	IC1
IC3 OP4177ARZ SO14 AD (62.23 39.37) R0	1	OP4177ARZ	OP4177ARZ-ND	IC3
U$4 MAX7480ESA+ MAX7480 MKH (80.31 46.1) R0	2	MAX7480ESA+	MAX7480ESA+-ND	U$4, U$5

U$5 MAX7480ESA+ MAX7480 MKH (80.07 29.58) R0		MAX7480ESA+		
IC7 LT1761ES5-5 SOT23-5 v-reg-micrel LINEAR TEC (52.8 61) R270	1	LT1761ES5-5	LT1761ES5-5#TRPBFCT-ND	IC7
U$7 DC-DC +-12V, RB-0512D MKH Recom Power (30.48 64.77) R90	1	RB-0512D	945-1105-ND	U$7
D1 UDZV5.1B SMB 5.1V zener diode ROHM (73.12 33.58) R90	2	UDZV5.1B	CZRSC55C5V1-G-ND	D1, D3
D3 UDZV5.1B SMB 5.1V zener diode ROHM (72.19 48.93) R90		UDZV5.1B	CZRSC55C5V1-G-ND	





S2 9450-2 IS-2235 switch-misc (89.2 32.7) R270	1	CL-SB-22B-01T	563-1342-6-ND	DPDT
VCC, GND, TXD, RXD 4 pin L-pinhead (48.26 59.59), (48.26 57.05), (48.26 54.57), (48.26 52.01) R0	1	4 pin L plug		use for VCC, GND, TXD, RXD
IOH 1X10 pinhead Useconn Electronics (54.61 66.04) R180	1	PINHD-1X10	10X1F-H8.5	IOH

IOL 1X08 pinhead (78.74 66.04) R180	2	PINHD-1X8	8X1F-H8.5	IOL
POWER 1X08 pinhead (60.96 17.78) R0		PINHD-1X8	8X1F-H8.5	POWEER
AD 1X06 pinhead (81.28 17.78) R0	1	PINHD-1X6	6X1F-H8.5	AD
LR-IN1 2X03/90 pinhead (11.43 38.1) R90	1	2X03 L pinhead		L & R brain wave input
ICSP JP3Q jumper (88.9 43.18) R90	1	3X2 M		SPI connection
Total : SJ X 9, WJ X 4, C X 41, R X 28, Silicon chip X 10, SW X 1, Connector X 7,				