ATMEGA168

U2

RESET 25 — PC6(/RESET)
16 — AVCC
3 — VCC
17 — AREF

PC0(ADC0) 19 — ADC_IN
PC1(ADC1) 20 — RESET_CNTR
PC2(ADC2) 21
PC3(ADC3) 22
PC4(ADC4/SDA) 23
PC5(ADC5/SCL) 24 — MODE

5 — PB6(XTAL1/TOSC1)
6 — PB7(XTAL2/TOSC2)

PD0(RXD) 26
PD1(TXD) 27
PD2(INT0) 28 (Ext. Interrupt)
PD3(INT1) 1
PD4(XCK/T0) 2
PD5(T1) 7
PD6(AIN0) 8
PD7(AIN1) 9

4*6 GND 18
GND

PB0(ICP) 10
PB1(OC1A) 11 — PWM_OUT
PB2(SS/OC1B) 12
PB3(MOSI/OC2) 13 — MOSI
PB4(MISO) 14 — MISO
PB5(SCK) 15 — SCK

VCC VCC

C3 0.1uF   C4 .01uF   C5 0.1uF
GND GND GND

(Serial Prog)
VCC
J2
1
2
3 RESET
4 MOSI
5 SCK
6 MISO
bitSnap Male

GND

RN1H 2k2 8 9
RN1G 2k2 7 10
RN1F 2k2 6 11
RN1E 2k2 5 12
RN1D 2k2 4 13
RN1C 2k2 3 14
RN1B 2k2 2 15
RN1A 2k2 1 16
RN2A 2k2 16 1
RN2B 2k2 15 2
RN2C 2k2 14 3
RN2D 2k2 13 4
RN2E 2k2 12 5
RN2F 2k2 11 6
RN2G 2k2 10 7
RN2H 2k2 9 8

XZFVG10C2
U3
dp2 b
c a
CA2 CA2
d f
e g
dp1 b
c a
CA1 CA1
d f
e g
GND GND

LED IS ILLUMINATED WHEN THE I/O PIN IS DRIVEN HIGH

BSM1
VCC
VCC1
SIG1
GND1
bitSnap Male

VCC
C2 0.1uF
GND

10K R1
R2 1M
TVS1 ESD9B5.0ST5G

VCC
U1 LV321SOT23-5
1 +
3 −
2
4

R3 10K
ADC_IN
C1 0.1uF
GND

GND GND GND GND GND

PWM_OUT
R4 470
R5 22k
R6 22k

C6 2.2uF
C7 0.1uF
C8 0.022uF
GND GND GND

VCC
C9 0.1uF
GND

VCC
U4 LV321SOT23-5
1 +
3 −
2
5
4

TVS2 ESD9B5.0ST5G
GND

VCC
BSF1
VCC
SIG
GND
bitSnap female

GND

R5 and R6 values fixed to 22K in ECO-140911

BSM2
VCC
VCC1
SIG1
GND
bitSnap Male

VCC
C10 0.1uF
GND

10K R8
R7 1M
TVS3 ESD9B5.0ST5G

VCC
U5 LV321SOT23-5
1 +
3 −
2
5
4

RESET_CNTR

MODE
SW1
SS14D03

R9 4.7k
R10 20K
R11 100k
R12 470k
GND

GND GND GND GND

littleBits Electronics, Inc.

TITLE: LB_BIT_o21_number-v03(rev5_4)

Approval Inits: Date:

REV: 4

Date: 11/14/2014 10:58:22 AM   Sheet: 1/1

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