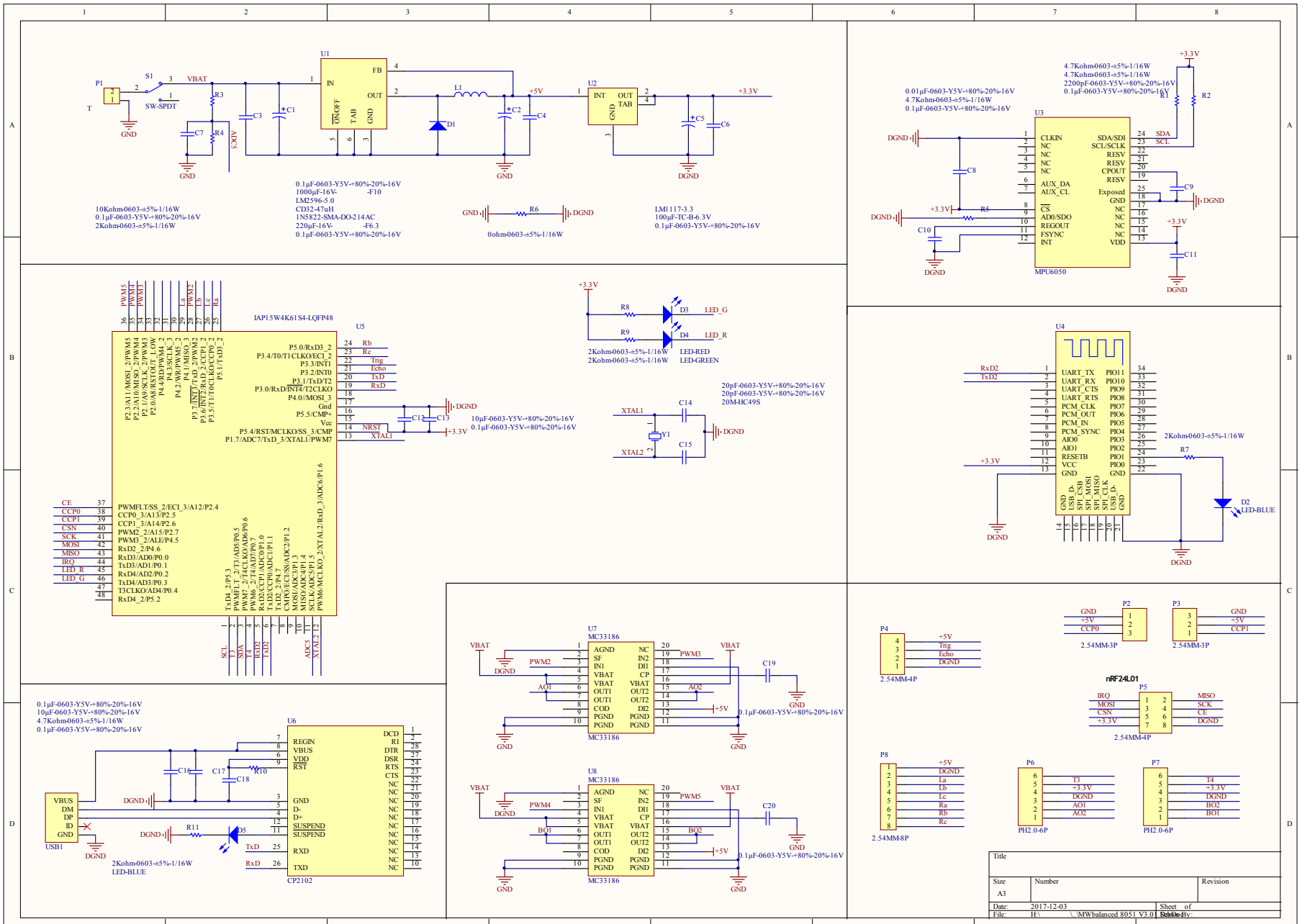
U1
IN
FB
OUT
ON/OFF
TAB
GND
L1
D1
C1
C2
C3
C4
C5
C6
C7
R3
R4
S1
SW-SPDT
P1
T
VBAT
+5V
+3.3V
GND
DGND
U2
INT
OUT
TAB
GND
5.0V
0.1µF-0603-Y5V-+80%-20%-16V
1000µF-16V- -F10
LM2596-5.0
CD32-47uH
1N5822-SMA-DO-214AC
220µF-16V- -F6.3
0.1µF-0603-Y5V-+80%-20%-16V
10Kohm-0603-±5%-1/16W
0.1µF-0603-Y5V-+80%-20%-16V
2Kohm-0603-±5%-1/16W
R6
0ohm-0603-±5%-1/16W
LM1117-3.3
100µF-TC-B-6.3V
0.1µF-0603-Y5V-+80%-20%-16V
U3
MPU6050
CLKIN
NC
AUX_DA
AUX_CL
CS
AD0/SDO
REGOUT
FSYNC
INT
SDA/SDI
SCL/SCLK
RESV
CPOUT
Exposed
VDD
SDA
SCL
R1
R2
R5
C8
C9
C10
C11
4.7Kohm-0603-±5%-1/16W
4.7Kohm-0603-±5%-1/16W
2200pF-0603-Y5V-+80%-20%-16V
0.1µF-0603-Y5V-+80%-20%-16V
0.01µF-0603-Y5V-+80%-20%-16V
4.7Kohm-0603-±5%-1/16W
0.1µF-0603-Y5V-+80%-20%-16V
U5
IAP15W4K61S4-LQFP48
P5.0/RxD3_2
P3.4/T0/T1CLKO/ECI_2
P3.3/INT1
P3.2/INT0
P3.1/TxD/T2
P3.0/RxD/INT4/T2CLKO
P4.0//MOSI_3
Gnd
P5.5/CMP+
Vcc
P5.4/RST/MCLKO/SS_3/CMP
P1.7/ADC7/TxD_3/XTAL1/PWM7
Rb
Rc
Tng
Echo
TxD
RxD
NRST
XTAL1
C12
C13
10µF-0603-Y5V-+80%-20%-16V
0.1µF-0603-Y5V-+80%-20%-16V
PWMFLT/SS_2/ECI_3/A12/P2.4
CCP0_3/A13/P2.5
CCP1_3/A14/P2.6
PWM2_2/A15/P2.7
PWM3_2/ALE/P4.5
RxD2_2/P4.6
RxD3/AD0/P0.0
TxD3/AD1/P0.1
RxD4/AD2/P0.2
TxD4/AD3/P0.3
T3CLKO/AD4/P0.4
RxD4_2/P5.2
CE
CCP0
CCP1
CSN
SCK
MOSI
MISO
IRQ
LED_R
LED_G
SCL
SDA
T3
T4
RxD2
TxD2
ADC5
XTAL2
R8
R9
D3
D4
LED_G
LED_R
2Kohm-0603-±5%-1/16W
2Kohm-0603-±5%-1/16W
LED-RED
LED-GREEN
20pF-0603-Y5V-+80%-20%-16V
20pF-0603-Y5V-+80%-20%-16V
20M-HC49S
XTAL1
XTAL2
Y1
C14
C15
U4
UART_TX
UART_RX
UART_CTS
UART_RTS
PCM_CLK
PCM_OUT
PCM_IN
PCM_SYNC
AIO0
AIO1
RESETB
VCC
GND
PIO11
PIO10
PIO9
PIO8
PIO7
PIO6
PIO5
PIO4
PIO3
PIO2
PIO1
PIO0
SPI_CSB
SPI_MOSI
SPI_MISO
SPI_CLK
USB_D-
USB_D+
RxD2
TxD2
R7
2Kohm-0603-±5%-1/16W
D2
LED-BLUE
U6
CP2102
REGIN
VBUS
VDD
RST
GND
D-
D+
SUSPEND
RXD
TXD
DCD
RI
DTR
DSR
RTS
CTS
NC
C16
C17
C18
R10
R11
D5
2Kohm-0603-±5%-1/16W
LED-BLUE
USB1
VBUS
DM
DP
ID
GND
0.1µF-0603-Y5V-+80%-20%-16V
10µF-0603-Y5V-+80%-20%-16V
4.7Kohm-0603-±5%-1/16W
0.1µF-0603-Y5V-+80%-20%-16V
U7
MC33186
AGND
SF
IN1
VBAT
OUT1
COD
PGND
NC
IN2
DI1
CP
DI2
PWM3
PWM2
AO1
AO2
C19
0.1µF-0603-Y5V-+80%-20%-16V
U8
MC33186
PWM5
PWM4
BO1
BO2
C20
0.1µF-0603-Y5V-+80%-20%-16V
P4
2.54MM-4P
+5V
Tng
Echo
DGND
P2
2.54MM-3P
GND
+5V
CCP0
P3
2.54MM-3P
GND
+5V
CCP1
nRF24L01
P5
2.54MM-4P
IRQ
MOSI
CSN
+3.3V
MISO
SCK
CE
DGND
P8
2.54MM-8P
+5V
DGND
La
Lb
Lc
Ra
Rb
Rc
P6
PH2.0-6P
T3
+3.3V
DGND
AO1
AO2
P7
PH2.0-6P
T4
+3.3V
DGND
BO2
BO1
Title
Size
A3
Number
Revision
Date: 2017-12-03
Sheet of
File: H:\ \.\MWbalanced 8051 V3.0.1.SchDoc
Drawn By: