LED

GND

LED1 R13 100R LED/TIM1_CH1
LED2 R14 100R LED/TIM1_CH2
LED3 R15 100R LED/TIM1_CH3
LED4 R16 100R LED/TIM1_CH4

OPTION

5VOUT VCHG
R12 1K
XC8108AC20ER-G
6 VIN VOUT 1
5 VSS ILIM 2
4 CE FLG 3
GPAD
7
U5
GND
SUB_EN_5VOUT
C15 106/25V
C16 104/25V
R11 90K
C17 106/25V
C18 104/25V
GND GND GND

TP1 TP2
GND

VCHG VCHG
Earbuds-L 1 POGO_R POGO_L 1 Earbuds-R
ADC_IN3 R20 1K 2 2 R19 1K ADC_IN4
C21 104/25V R27 3R9 R28 3R9 C20 104/25V
GND GND GND GND

DEBUG PORT
VMCU SWIMKEY1 GND NRST
TP3 TP4 TP5 TP6

VBUS

TP_DETECT R25 VBUS
R21
SST3904
R24 1K R26 VBUS_DET
B
C Q
E
R22 2M
C22 104/25V
NC NC 2M
GND GND GND

VBUS DETECT

HALL SENSOR

VBAT
R1 2M
U1
VCC OUT 2 R5 1K HALLSENSOR_OUT
GND
DRV5032-SOT-23
C1 106/25V
C13 NC
GND GND

MCU NRST

VBUS
TP_NRST R2
NRST R23 1K 10K
C14 104/25V C5
NC

OPTION

GND

POWER

VBAT VBUS
GND GND
VBAT+ VBAT- VBUS GND

NTC

VMCU
R37 NC
R39 1K ADC_IN6
R38 10KNC
C33 104/25V
GND GND

VBAT
R6 2.2M
R7 2M
R8 1K Battery ADC_IN5
C6 104/25V
GND GND

Ichg = 500mA

SUB_EN_5VOUT
EN_5VOUT R32 100K
R33 330K
C25 104/25V
GND
R31 1K
GND
Q2 C.J3400-N-MOS
Q4 C.J3400-N-MOS
GND
C26 102/25V R36
R35 47K 10K XFER_IF
TP_VCHG
R34 4R7
Q3 SI2301-P-MOS
R30 750K
C27 NC
VCHG
GND

U6 ETA9697
ETA9697_BOOST R3 1K
ETA9697_STATE R4 3K3
R29 3K4
1 ISET NTC 8
2 VIN STATE 7
3 BAT BOOST 6
4 SW 5VOUT 5
GND 9
VBUS
VBAT
L1 2.2uH
C32 104/25V C31 106/25V C30 104/25V C23 106/25V
C24 106/25V R41 1M 5VOUT
GND GND GND GND GND

MCU POWER PATH

VBUS VBAT VMCU
D3 LRB521S-30T1G D1 LRB521S-30T1G
U4
VOUT 2 FB2 100R@1MHz
VIN
VSS
XC6206P301MR
C9 104/25V C10 106/25V C12 106/25V C11 104/25V
GND GND GND

U2

TP_PA2 TP_PA1 TP_RX TP_TX TP_PD4
TP_ADC4 TP_ADC3 TP_SWIM TP_PC7 TP_PC6 TP_PC5

KEY2 1 UART1_CK/TIM2_CH1_BEEP/(HS)PD4 PD3(HS)/AIN4/TIM2_CH2/ADC_ETR 20 ADC_IN4
ADC_IN5 2 UART1_TX/AIN5/(HS)PD5 PD2(HS)/AIN3[TIM2_CH3] 19 ADC_IN3
ADC_IN6 3 UART1_RX/AIN6/(HS)PD6 PD1(HS)/SWIM 18 SWIM/KEY1
NRST 4 NRST PC7(HS)/SPI_MISO[TIM1_CH2] 17 LED/TIM1_CH2
ETA9697_STATE 5 OSCIN/PA1 PC6(HS)/SPI_MOSI[TIM1_CH1] 16 LED/TIM1_CH1
ETA9697_BOOST 6 OSCOUT/PA2 PC5(HS)/SPI_SCK[TIM2_CH1] 15 EN_5VOUT
GND 7 VSS PC4(HS)/TIM1_CH4/CLK_CCO/AIN2[TIM1_CH2N] 14 LED/TIM1_CH4
8 VCAP PC3(HS)/TIM1_CH3[TLI][TIM1_CH1N] 13 LED/TIM1_CH3
VMCU 9 VDD PB4(T)/I2C_SCL[ADC_ETR] 12 VBUS_DET
XFER_IF 10 [SPI_NSS]TIM2_CH3/(HS)PA3 PB5(T)/I2C_DAT[TIM1_BKIN] 11 HALLSENSOR_OUT

STM8S003F3-TSSOP20
N76E003AT20

TP_PB5 TP_PB4 TP_PC3 TP_RCC

C2 225/25V C4 106/25V C3 104/25V
GND GND

VMCU
R17 100K R40 100K
KEY2 R18 1K R9 1K SWIM/KEY1
C7 NC SW2 SW1 C8 NC
2 2
GND GND GND GND