STM32 Microcontroller

STM32F405RGTx
U1

VCAP_1 31
VCAP_2 47

PC0 8
PC1 9
PC2 10
PC3 11
PC4 24
PC5 25
PC6 37
PC7 38
PC8 39
PC9 40
PC10 51
PC11 52
PC12 53
PC13 3
PC14 4
PC15 5
PD2 54
PH0 6
PH1 7

VBAT 1
VDD 19
VDD 32
VDD 48
VDD 64
VDDA 13

VSS 18
VSSA 12

PA0 14
PA1 15
PA2 16   LED_STATUS
PA3 17
PA4 20
PA5 21
PA6 22
PA7 23
PA8 41
PA9 42
PA10 43
PA11 44
PA12 45
PA13 46   SWDIO
PA14 49   SWCLK
PA15 50   SWO

PB0 26
PB1 27
PB2 28
PB3 55   SWO
PB4 56   SWDIO
PB5 57   SWCLK
PB6 58   I2C1_SCL
PB7 59   I2C1_SDA
PB8 61   I2C3_SCL
PB9 62   I2C3_SDA
PB10 29   UART3_TX
PB11 30   UART3_RX
PB12 33   LowBat
PB13 34   Fet
PB14 35
PB15 36

NRST 7
BOOT0 60
BOOT0
HSE_OUT
HSE_IN

NRST
BOOT0
HSE_OUT
HSE_IN

C1 2u2   GND
C2 2u2   GND
C3 4u7   +3.3V
C4 100n
C5 100n +3.3V
C6 100n +3.3V
C7 100n
C8 100n

C11 10p
C12 10p
Y1 16MHz
R2 47
GND

C9 1u
C10 10n
L1 39n
+3.3V
+3.3VA

D1 BLUE
R3 1k5
LED_STATUS

SW1 SW_SPDT
BOOT0
R1 10k
GND
+3.3V

Battery – 3.3v, 1A

U4 MCP16301
Vin 4
EN 5
GND 2
BOOST 1
SW 6
Vfb 3

C14 10u VDC
GND

D4 B140-E3
D2 1N4148
L2 15u
C15 100n
GND

R9 10k
R8 31k6
C16 10u
C17 10u
+3.3V
GND

R15 1k
LowBat
GND
J5 Conn_01x02_Socket

J8 XT60 IN VDC
GND

J1 5v Out +5VD
GND

J7 SWD
+3.3V
GND
SWDIO
SWCLK
SWO
NRST

Battery – 5v, 3A

U2 MP2303ADN
EN 7
SS 8
COMP 6
GND
IN 2
BS 3
SW 4
FB 5

C18 22u VDC
GND
C19 22n
R11 90k9
R10 10k
L3 6u8
C20 100n
C21 22u
C22 22u
R12 10k
+5VD
GND

U3 ADS1115IDGS
AIN0 4
AIN1 5
AIN2 6
AIN3 7
GND 3
VDD 8
ALERT/RDY 2
SCL 10
SDA 9
ADDR 1

R7 1k
R19 1k
R20 1k
R21 1k
R16 10k
R17 10k
R18 10k
J9 Conn_01x05_Pin
ADC0/2/3

C13 100n
+5VD
GND

R13 1k5
R14 1k5
+3.3V
GND
I2C3_SCL
I2C3_SDA
J3 Conn_01x04_Socket

UART3_TX
UART3_RX
+3.3V
GND
J2 Conn_01x04_Socket

R4 1k5
R5 1k5
R6 1k5
+5VD
I2C1_SCL
I2C1_SDA
J4 Conn_01x04_Socket

H1 MountingHole_Pad
H2 MountingHole_Pad
H3 MountingHole_Pad
H4 MountingHole_Pad
GND

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Rev:

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