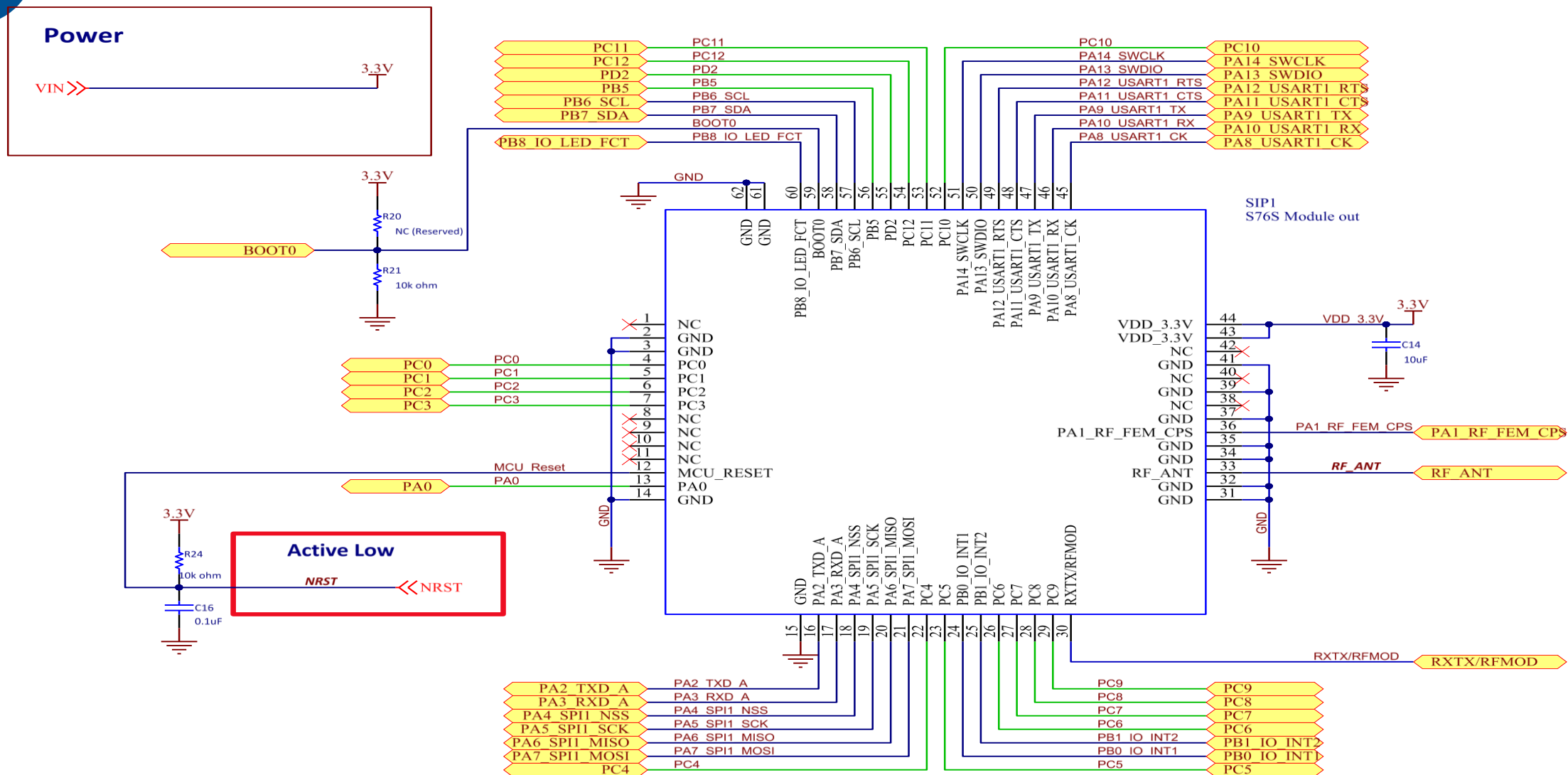


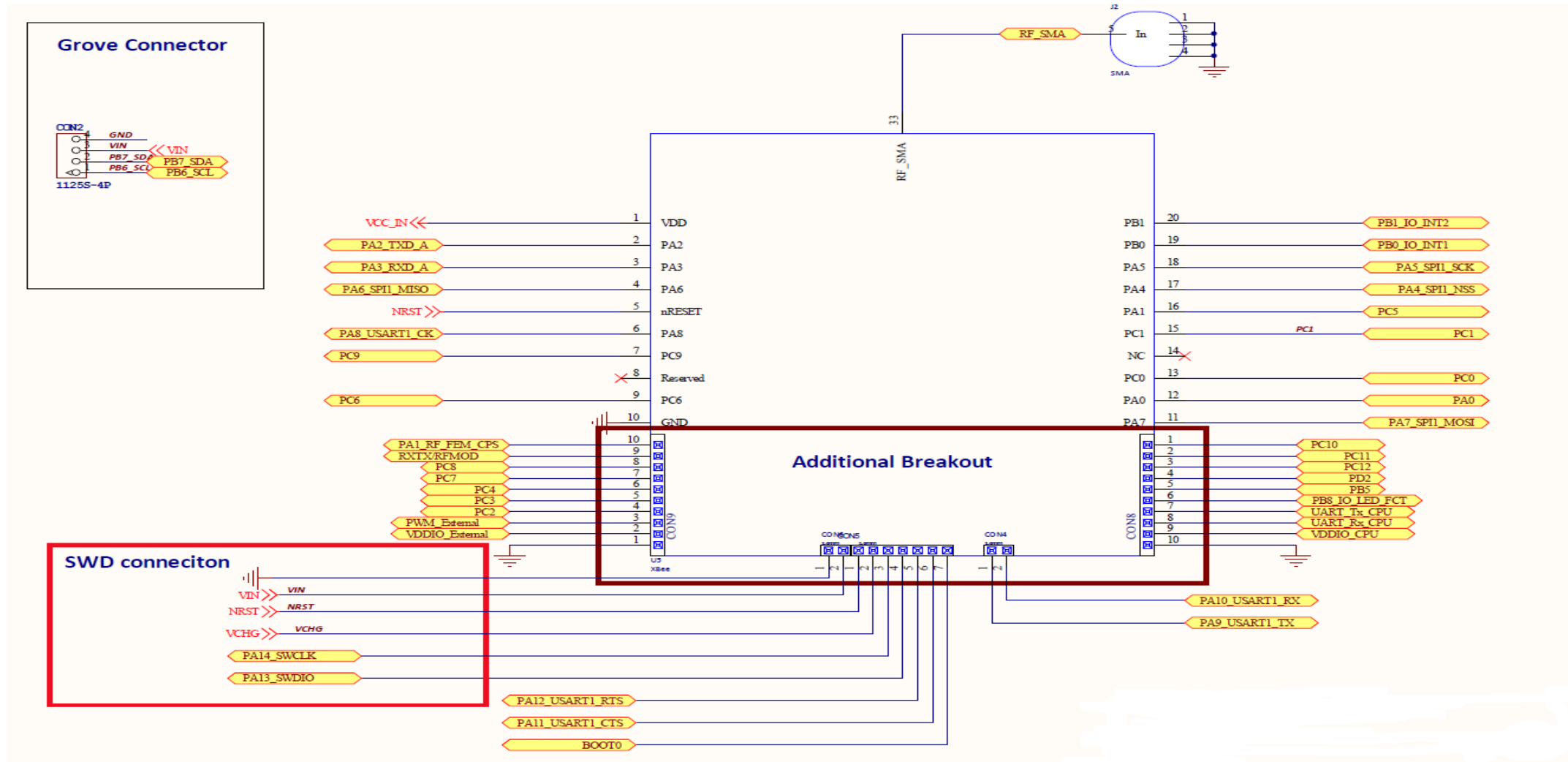
# EK-G76SXB User Guide

2016/11/16





# XBee Breakout Schematic





## Power Supply for SiGe

The diagram illustrates the power supply configuration for the SiGe device. A voltage source  $V_{CHG}$  is connected to the IN pin (pin 1) of the voltage regulator U6 (XC6210B402MR). A 4.7 $\mu$ F capacitor (C17) is connected between the IN pin and GND. The GND pin (pin 2) is connected to a common ground. The EN pin (pin 3) is connected to GND. The OUT pin (pin 5) is connected to  $V_{CC\_SiGe}$ . The BYP pin (pin 4) is also connected to GND. The regulator is labeled U6 and XC6210B402MR.

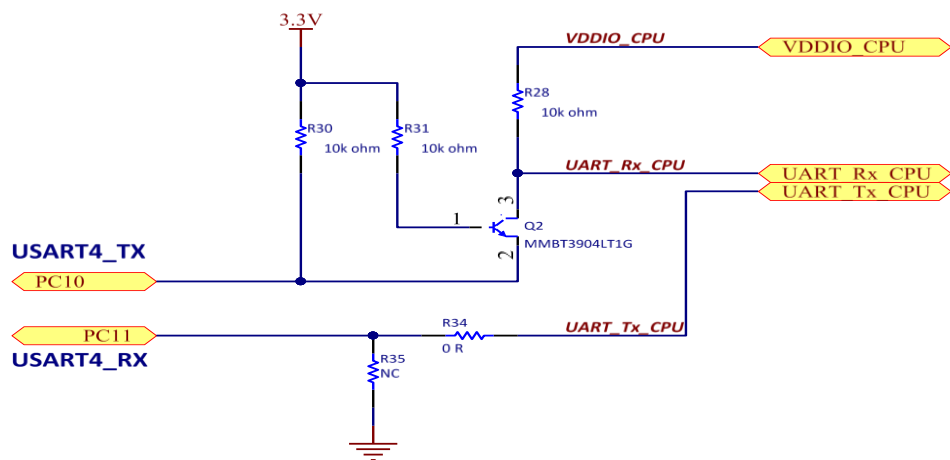
The diagram illustrates the PCB layout for a SiGe PA/FEM module. Key components and annotations include:

- SiGe IC (U6):** XC6210B402MR, with pins IN, OUT, GND, EN, and BYP.
- Attenuator for PA I/P power tuning:** A network of resistors (R18, R19, R22) providing 10dB attenuation.
- Co-Pad:** A matching network consisting of a capacitor (C25) and a resistor (R25) for impedance matching.
- RF Routing:** A blue box indicating the RF signal path.
- ANT1 connect to shunt 50ohm:** A 50 ohm resistor (R23) connected to the antenna port.
- Other components:** Various capacitors (C19, C20, C21, C22, C23, C24, C26, C27), inductors (L1, L2, L3, L4, L5, L6, L7), and resistors (R26, R27) are used for matching and tuning.
- Power and Ground:** Connections to VCC\_SiGe and GND are shown throughout the layout.

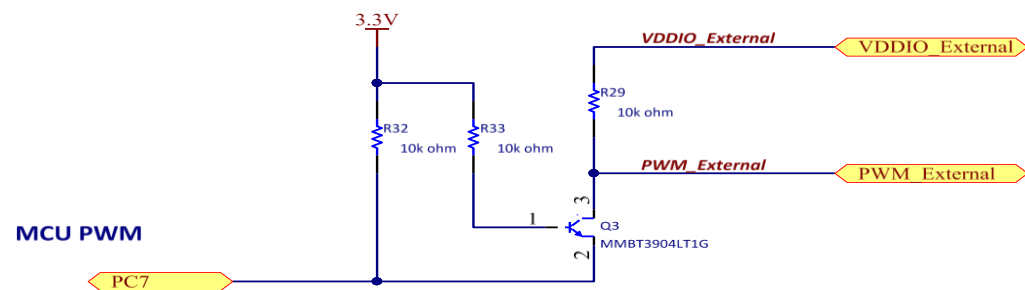


# Level Shifter Schematic

## UART Level Shifter



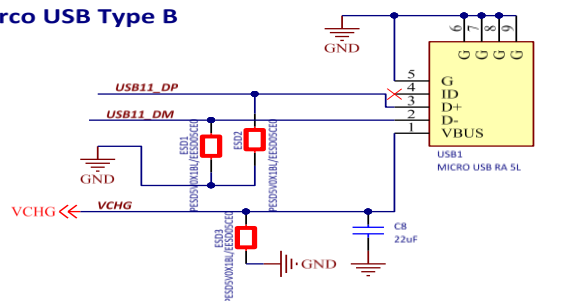
## PWM Level Shifter



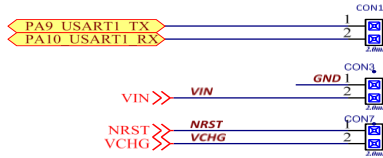


# EE Port Schematic

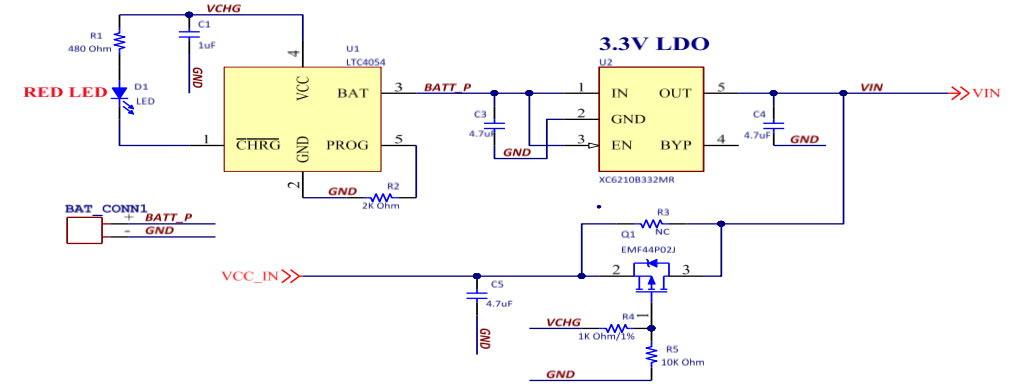
Mirco USB Type B



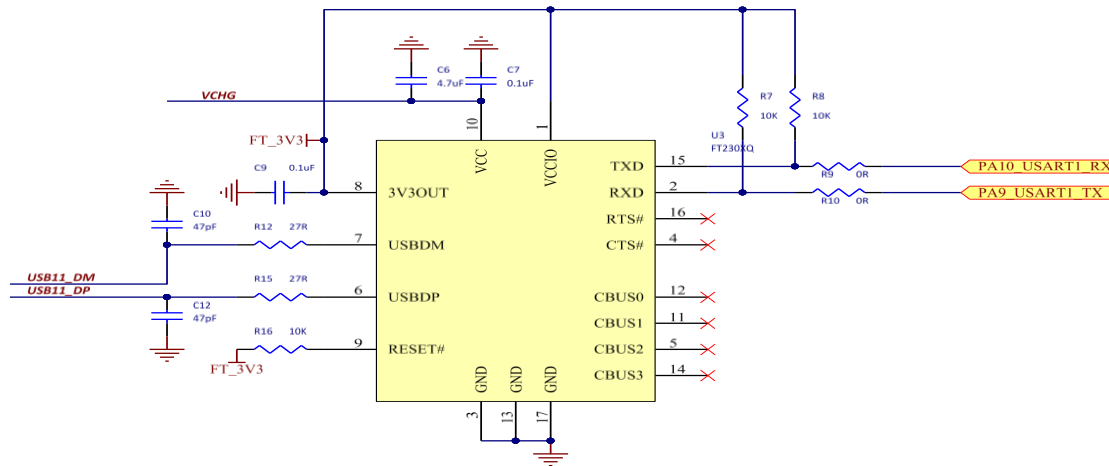
Extender Board



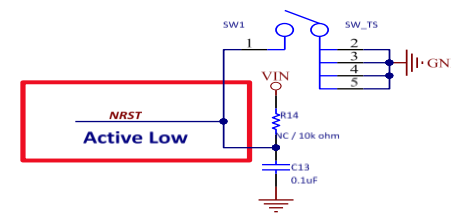
Power Plan



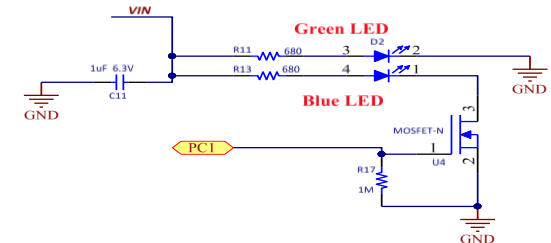
Uart to USB



Reset Switch



Associate LED (Place on XBee Main Brd.)



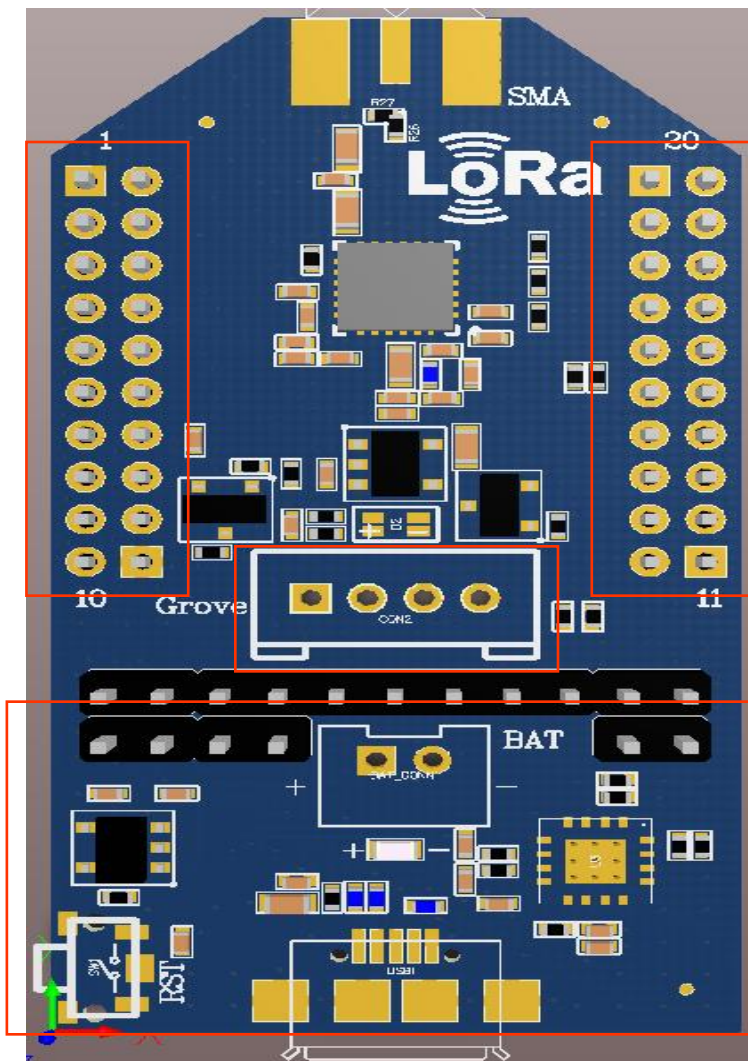


# Breakout Pin Definition

VCC_IN		PA1_RF_FEM_CPS
PA2_TXD_A		RXTX/RFMOD
PA3_RXD_A		PC8
PA6_SPI1_MISO		PC7
NRST		PC4
PA8_USART1_CK		PC3
PA9		PC2
NC		PWM_External
PC6		VDDIO_External
GND		GND



GND  
VCC  
PB7\_SDA  
PB6\_SCL



PC10		PB1_IO_INT2
PC11		PB0_IO_INT1
PC12		PA5_SPI1_SCK
PD2		PA4_SPI1_NSS
PB5		PC5
PB8_IO_LED_FCT		PC1
UART_TX_CPU		NC
UART_RX_CPU		PC0
VDDIO_CPU		PA0
GND		PA7_SPI_MOSI

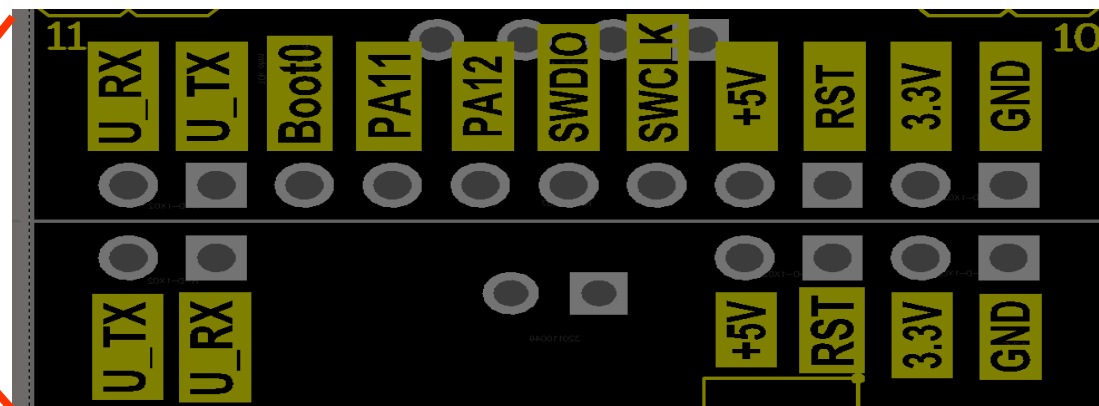
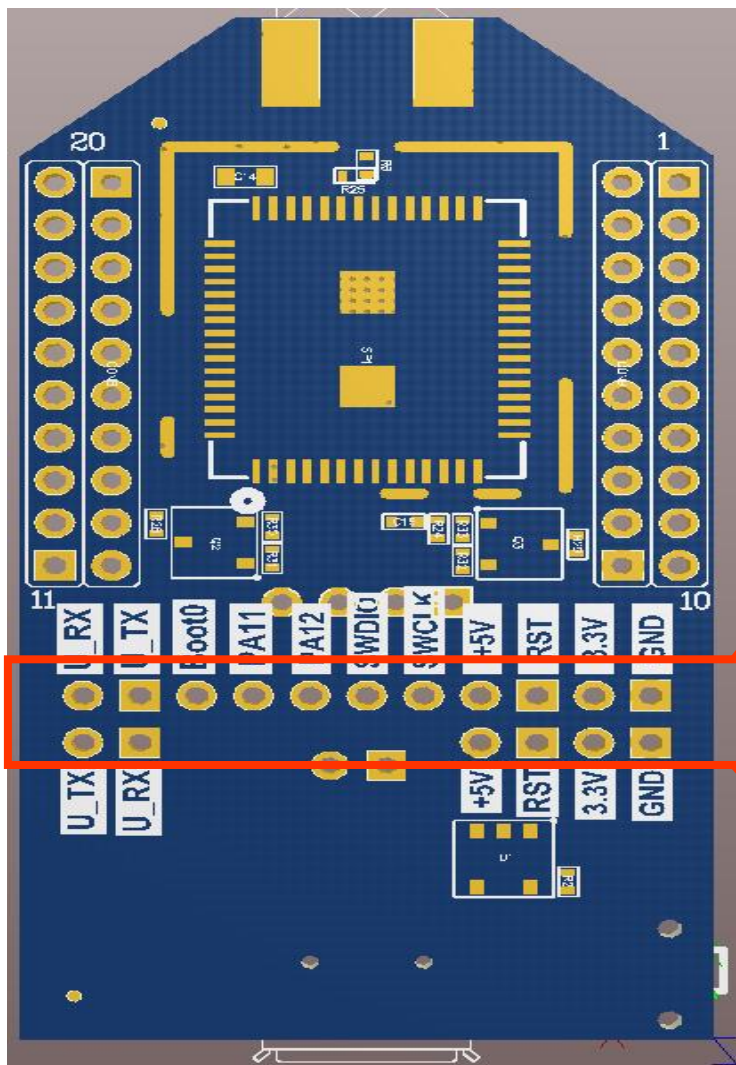
USB TO TTL

USB TO TTL Driver ([FTDI](#)  
[FT230XQ](#))

Top view



# Breakout Pin Definition

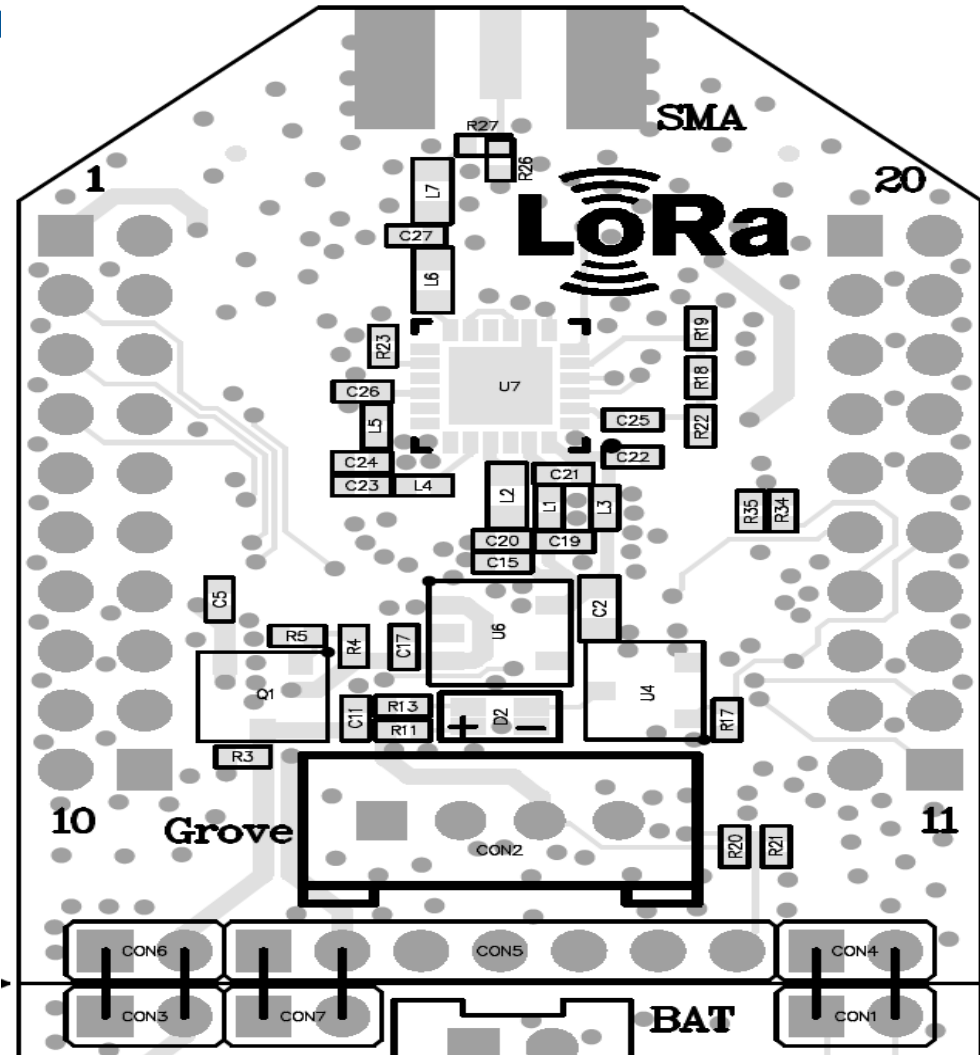


Bottom view

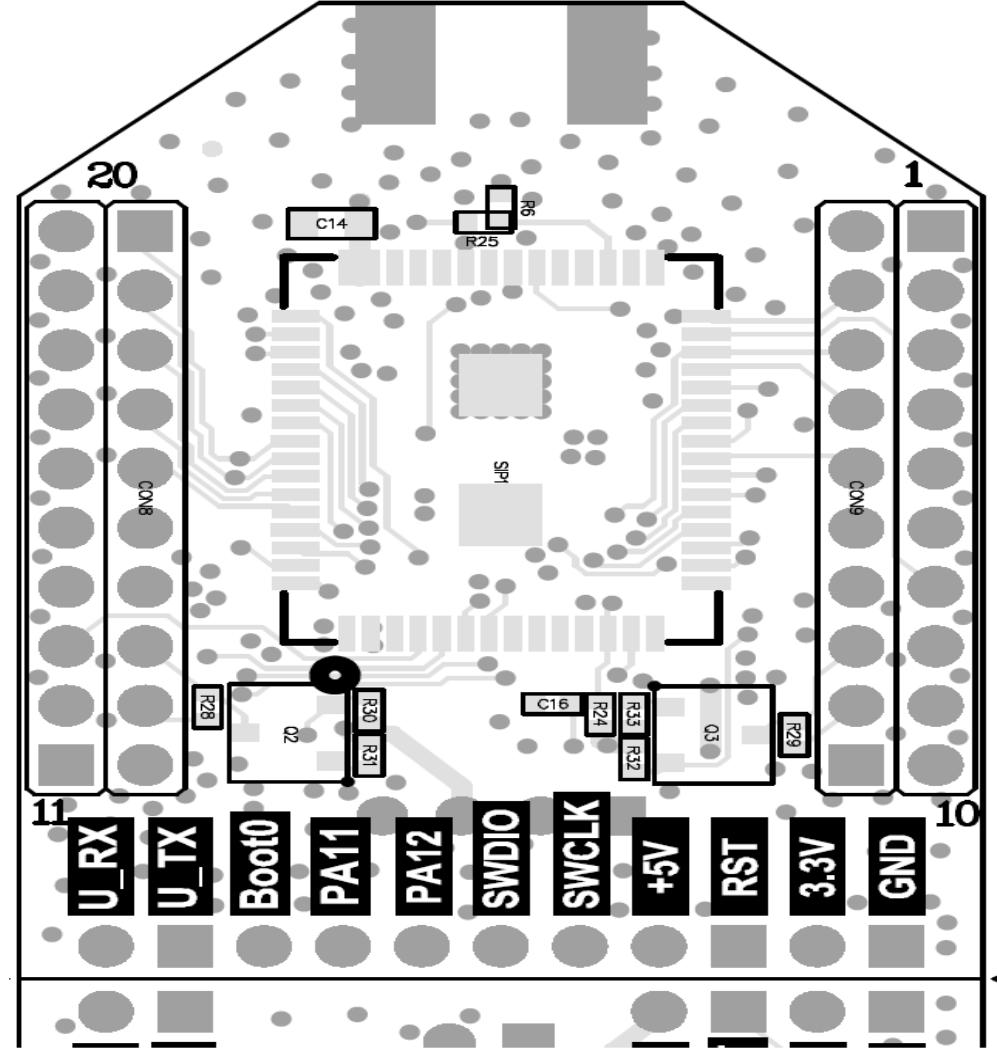




# Component Location



Top view



Bottom view

The background features a series of concentric circles in a lighter shade of blue, centered on the right side of the image. These circles overlap and create a sense of depth and movement.

**GIỎT**  
**Thank You!**