

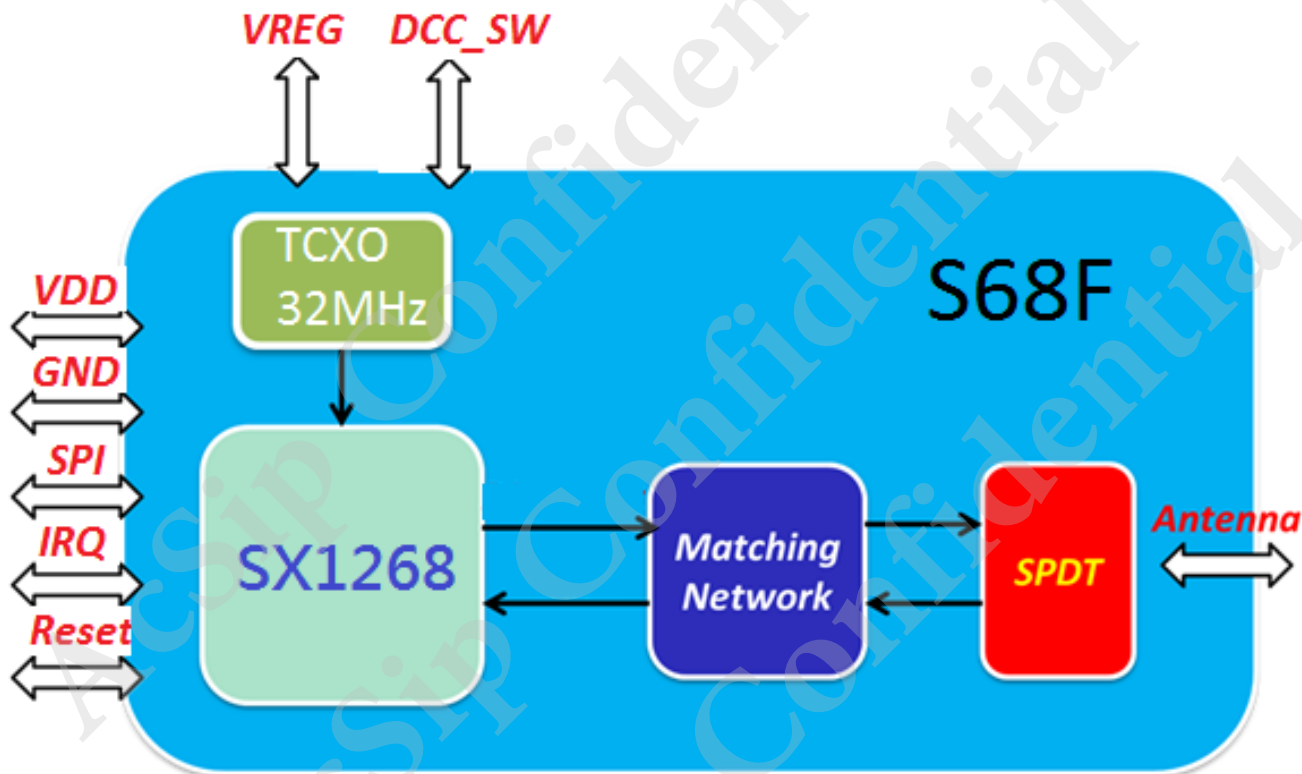
# EK-S68F User Guide



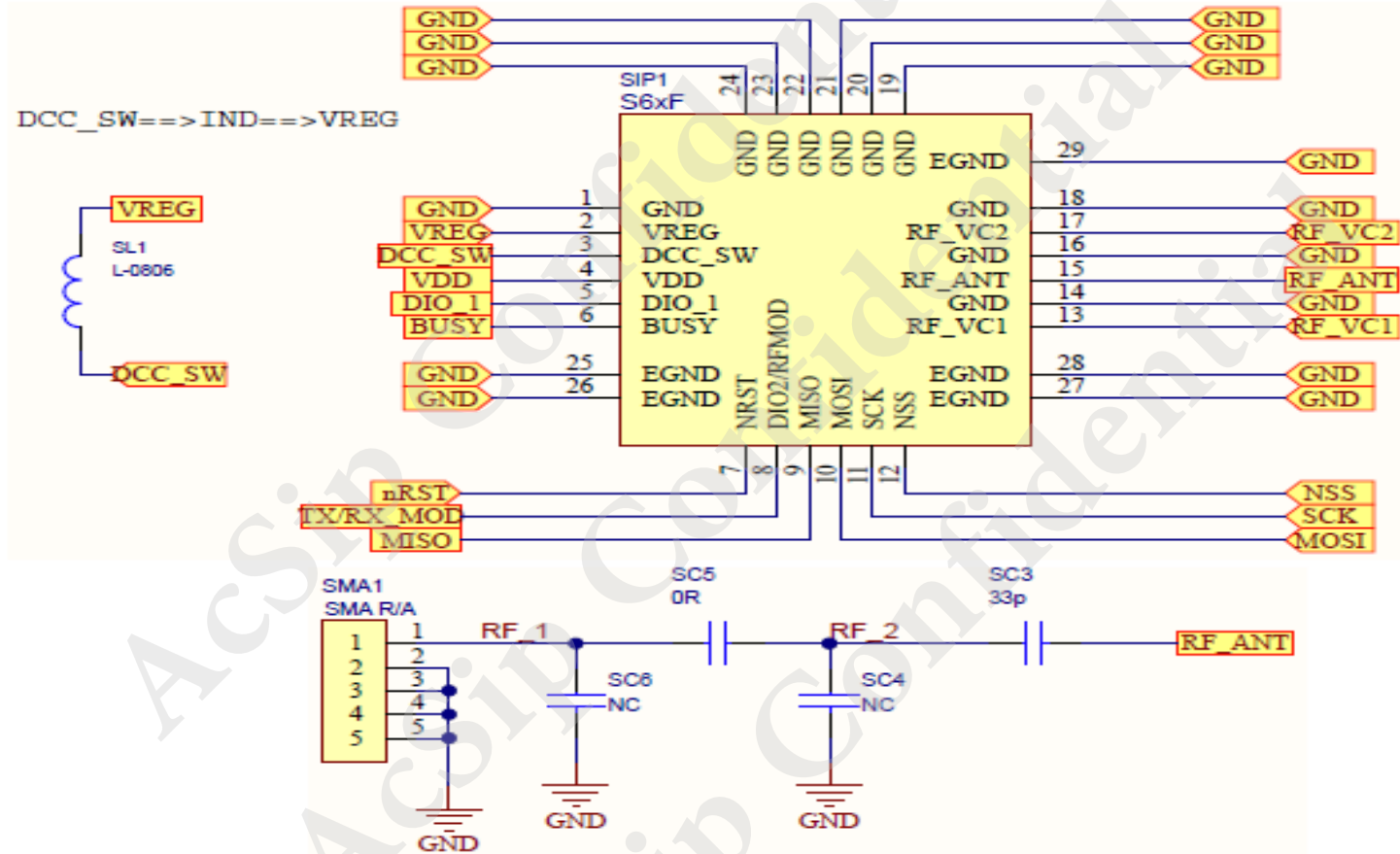
**An IoT Solution Company**

2020 / 05 / 26  
Doc.No. 912-12405  
Ver.A

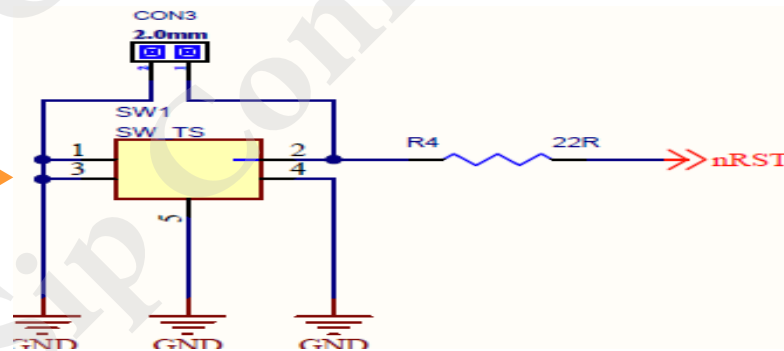
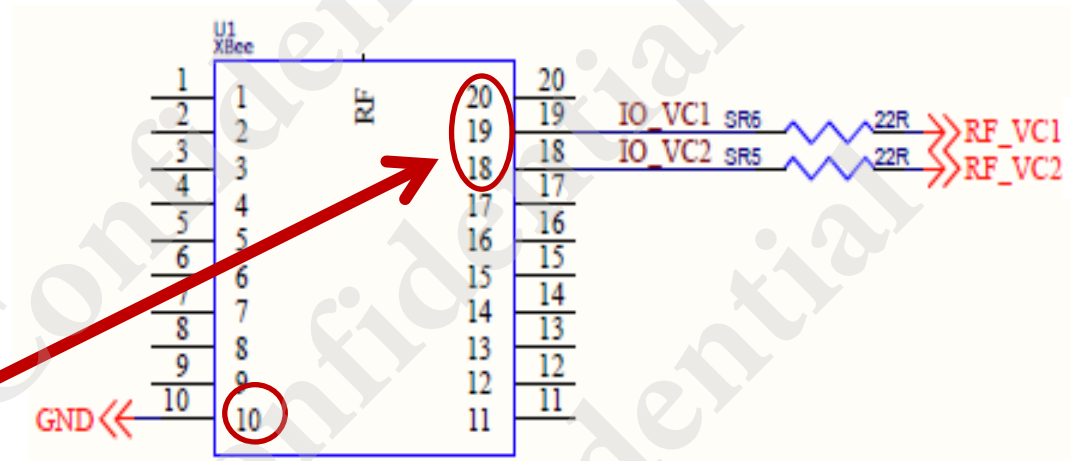
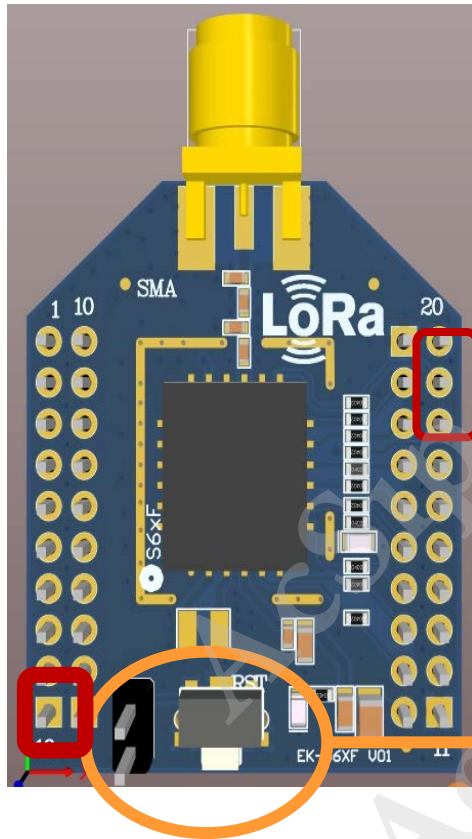
# Block Diagram



# S68F Schematic

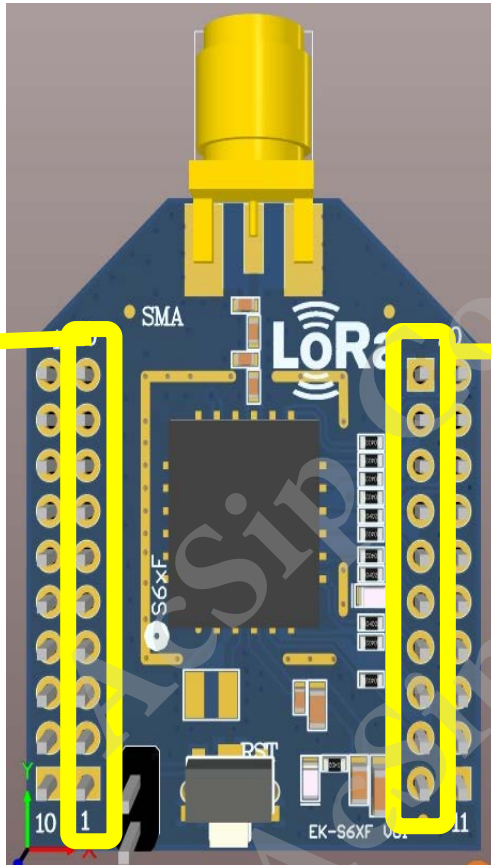


# Connection Breakout - 1



# Connection Breakout - 2

N.C.

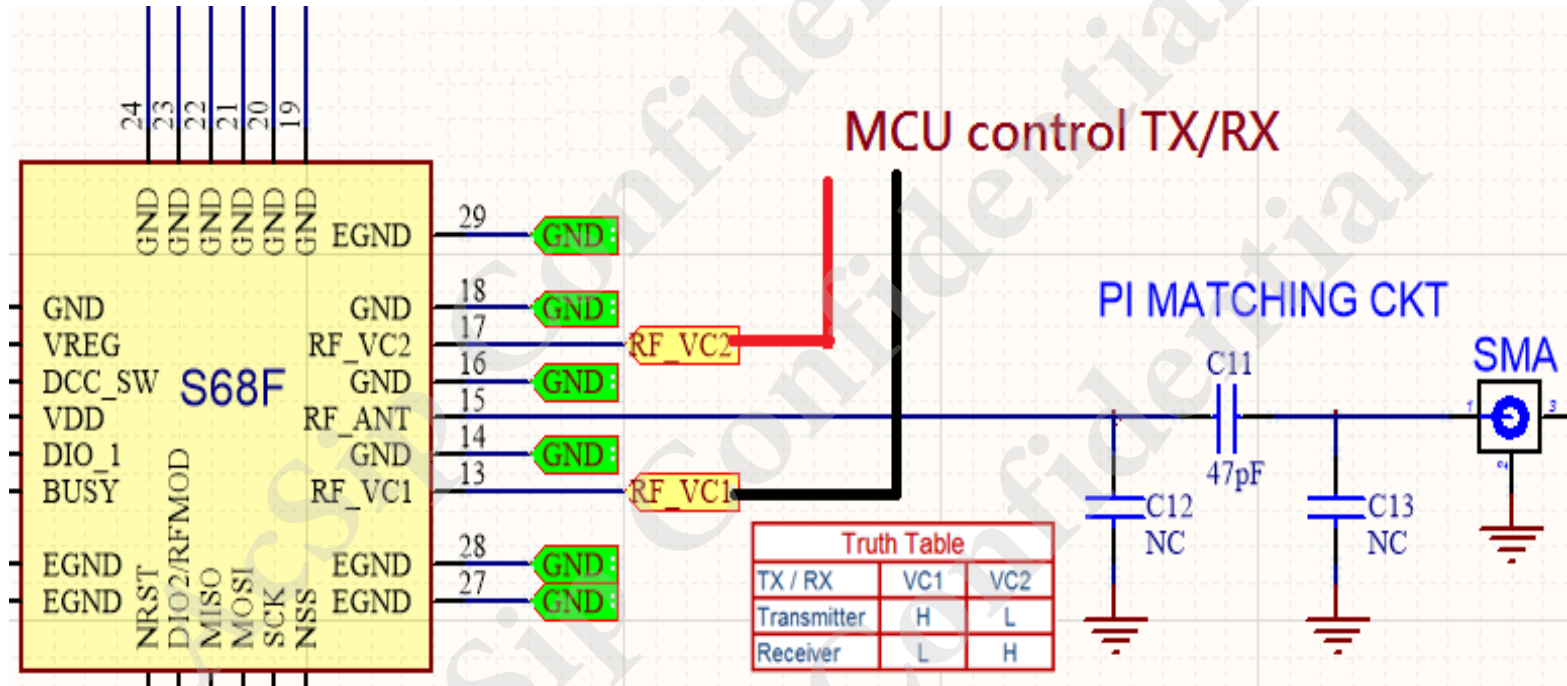


CON1  
2.0mm

1				GND
2	IO CS	SR12	22R	NSS
3	IO SCK	SR11	22R	SCK
4	IO MOSI	SR10	22R	MOSI
5	IO MISO	SR9	22R	MISO
6	IO TX/RX MOD	SR8	22R	TX/RX_MOD
7	IO RST	SR7	22R	nRST
8	IO BUSY	SR3	22R	BUSY
9	IO DIO1	SR4	22R	DIO_1
10				VDD

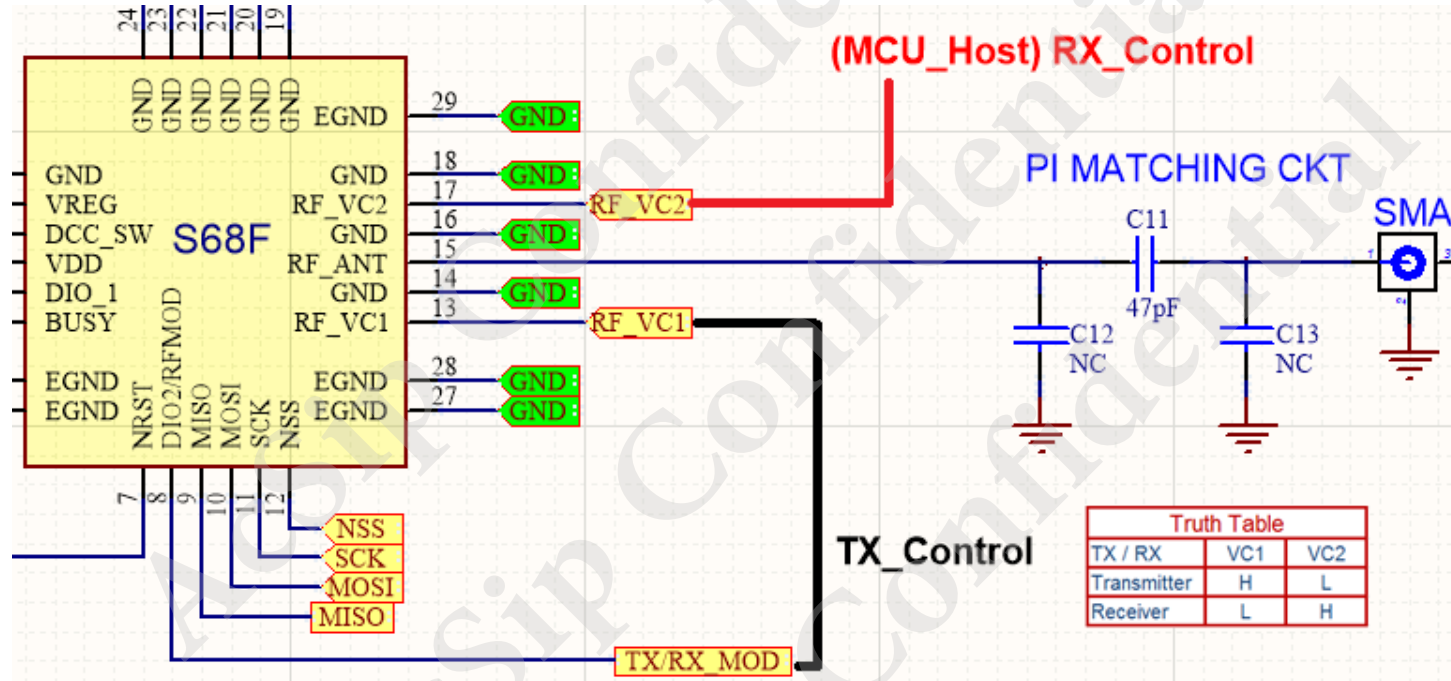
# TX / RX Switch Control Mode

## Mode A



# TX / RX Switch Control Mode

Mode B



# Control Note For Driver

## # Note:

- (1) The standard Driver of Semtech GitHub works under single\_switch mode , then it means VC2 will keep High\_state for non\_sleep and switch to Low\_state for sleep. Therefore the firmware developer need to modify driver to set VC2 as Low\_level.
- (2) Please check your MCU platform for SPI(Master) control Information
- (3) Please check Semtech GitHub for driver reference in control
- (4) Please check SPI interface' DIO1~DIO3 Configuration:



# Control Note For Driver

## # Digital Pads Configuration for each Chip Mode

Mode	DIO3	DIO2	DIO1	BUSY	MISO	MOSI	SCK	NSS	NRESET
Reset	PD	PD	PD	PU	HIZ	HIZ	HIZ	IN	-
Start-up	HIZ PD	HIZ PD	HIZ PD	HIZ PU	HIZ	HIZ	HIZ	IN	IN PU
Sleep	HIZ PD	HIZ PD	HIZ PD	HIZ PU	HIZ	HIZ	HIZ	IN	IN PU
STBY_RC	OUT	OUT	OUT	OUT	OUT	IN	IN	IN	IN PU
STBY_XOSC	OUT	OUT	OUT	OUT	OUT	IN	IN	IN	IN PU
FS	OUT	OUT	OUT	OUT	OUT	IN	IN	IN	IN PU
RX	OUT	OUT	OUT	OUT	OUT	IN	IN	IN	IN PU
TX	OUT	OUT	OUT	OUT	OUT	IN	IN	IN	IN PU

- Note:**
- PU = pull up with 50 k $\Omega$  at typical conditions
  - PD = pull down with 50 k $\Omega$  at typical conditions (the resistor value varies with the supply voltage)