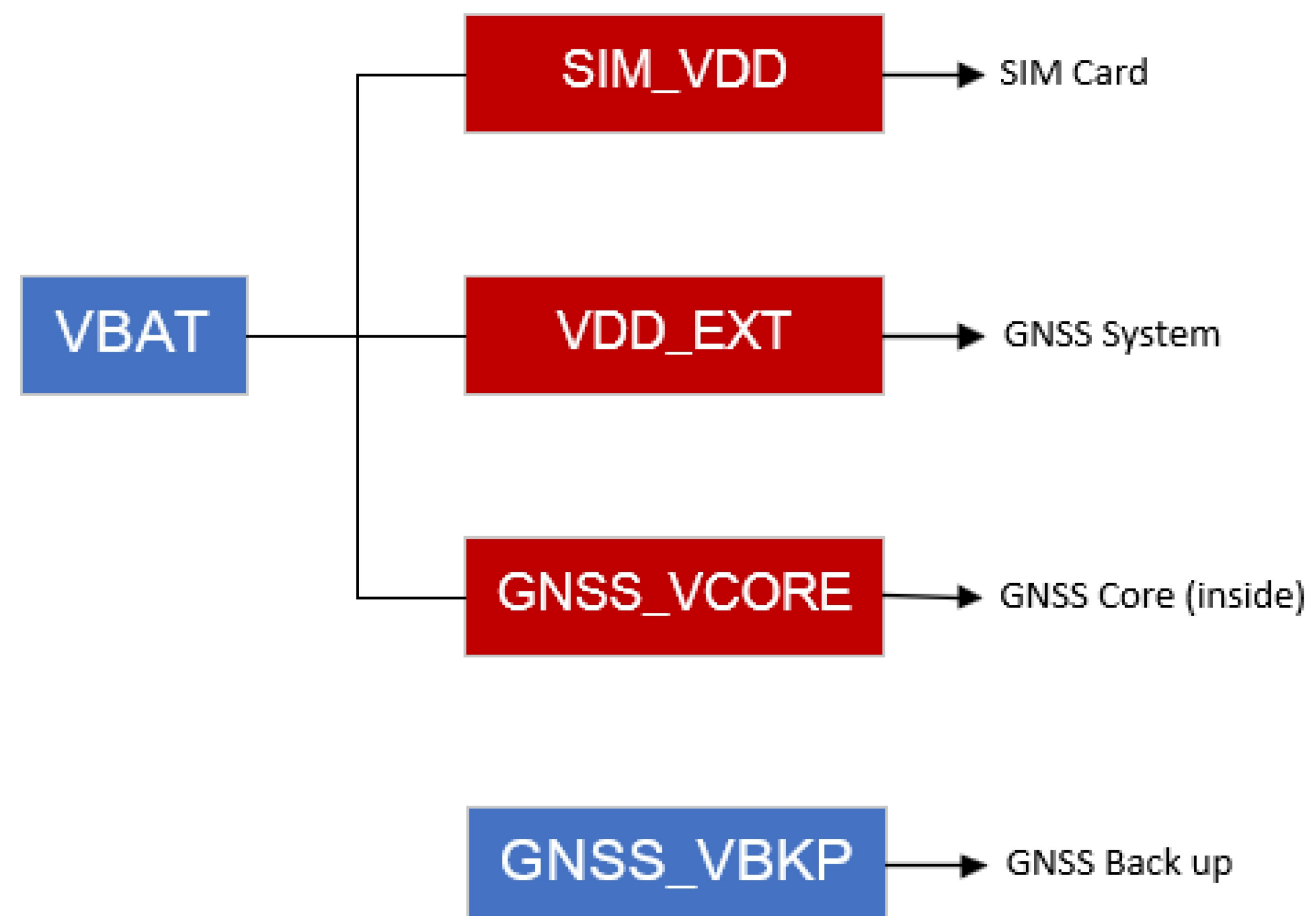


Table of content

- 1.SIM767XX_Module
- 2.Power Design
- 3.USIM/USB/UART Interface



THIS DOCUMENT CONTAINS PROPRIETARY TECHNICAL INFORMATION WHICH IS THE PROPERTY OF SIMCOM WIRELESS SOLUTIONS LIMITED. COPYING, TO OTHERS AND USING THIS DOCUMENT, ARE FORBIDDEN WITHOUT EXPRESS AUTHORITY BY SIMCOM. OFFENDERS ARE LIABLE TO THE PAYMENT OF INDEMNIFICATIONS. ALL RIGHTS RESERVED BY SIMCOM IN THE PROPRIETARY TECHNICAL INFORMATION. © - INCLUDING BUT NOT LIMITED TO REGISTRATION GRANTING OF A PATENT, A UTILITY MODEL OR DESIGN. ALL SPECIFICATIONS SUPPLIED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.

SIMCom Wireless

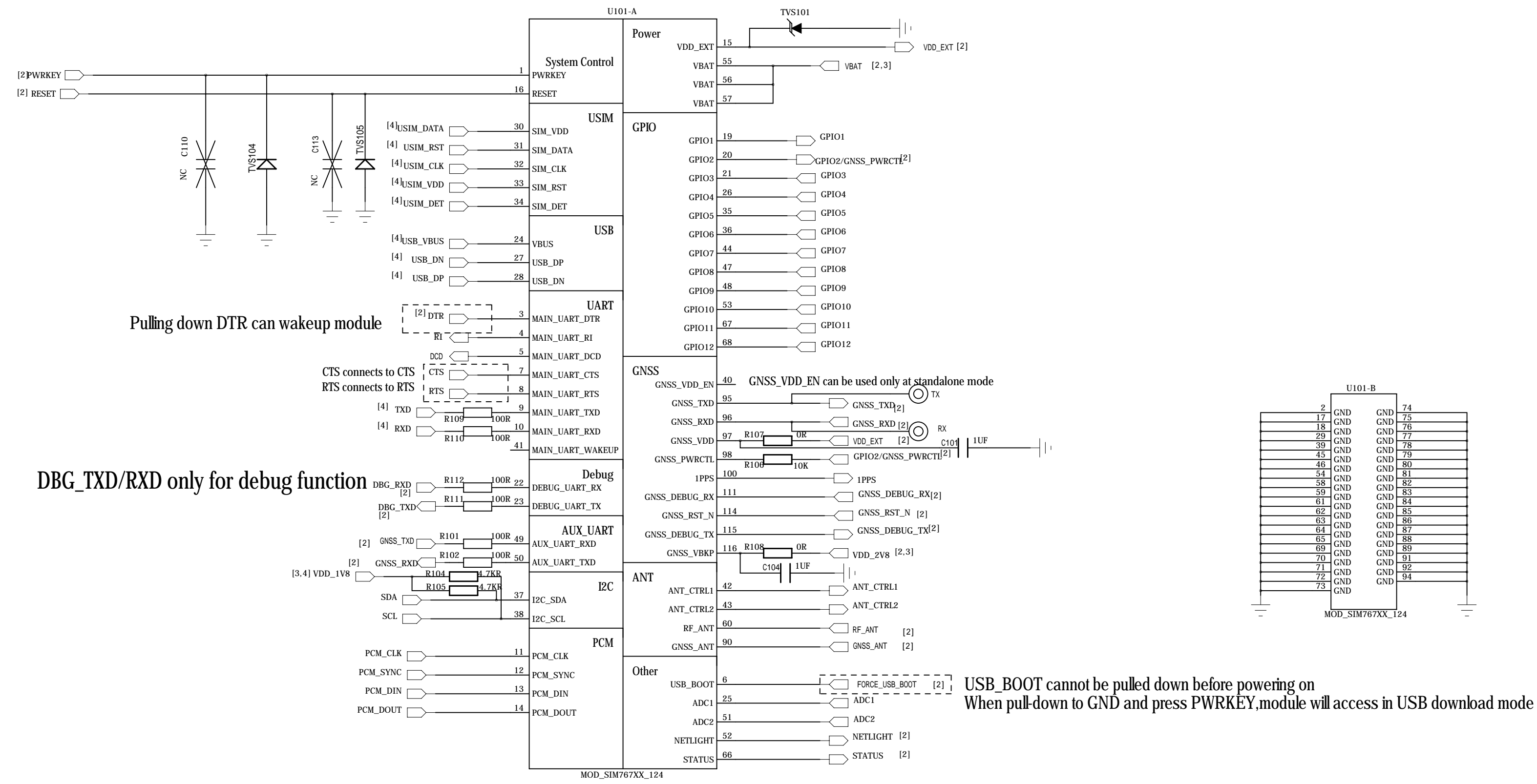
Title
SIM767XX_V1.01_KDL

Size: Sheet
D: TABLE_OF_CONTENT

Date: 2023/5/8 Sheet 1 of 4

Rev
zA-

Module Interface



Pulling down DTR can wakeup module

DBG_TXD/RXD only for debug function

USB_BOOT cannot be pulled down before powering on
 When pull-down to GND and press PWRKEY, module will access in USB download mode

Main Antenna
 TVS for ESD protection
 Keep RF trace 50 ohm and as short as possible

GNSS Antenna
 TVS for ESD protection
 Keep RF trace 50 ohm and as short as possible

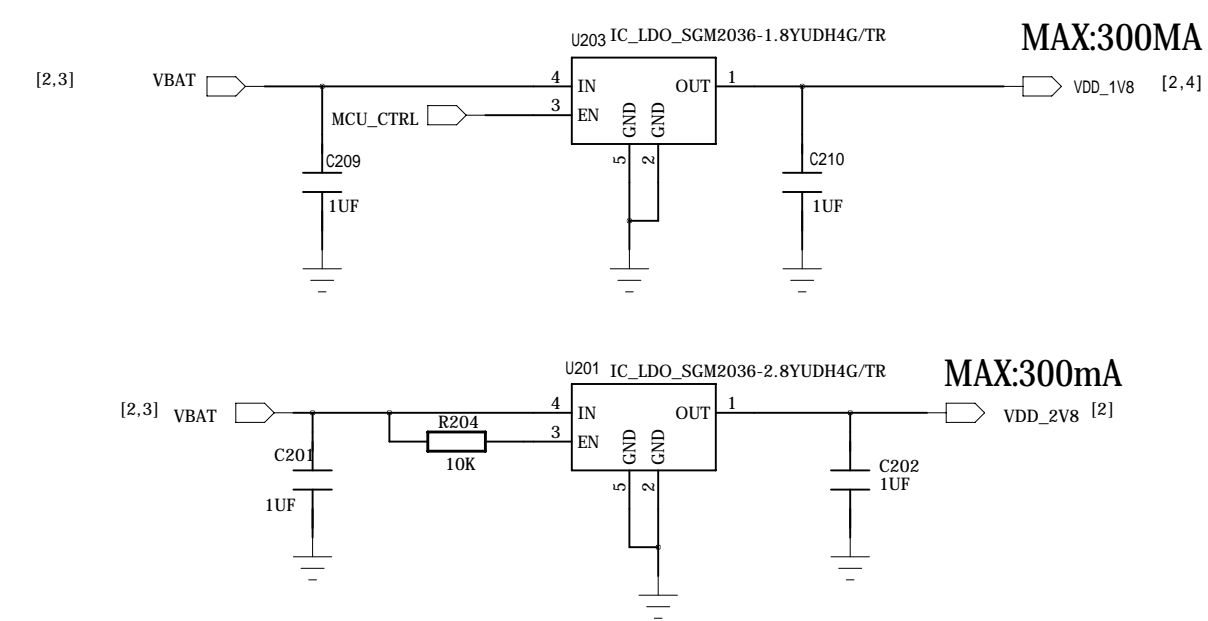
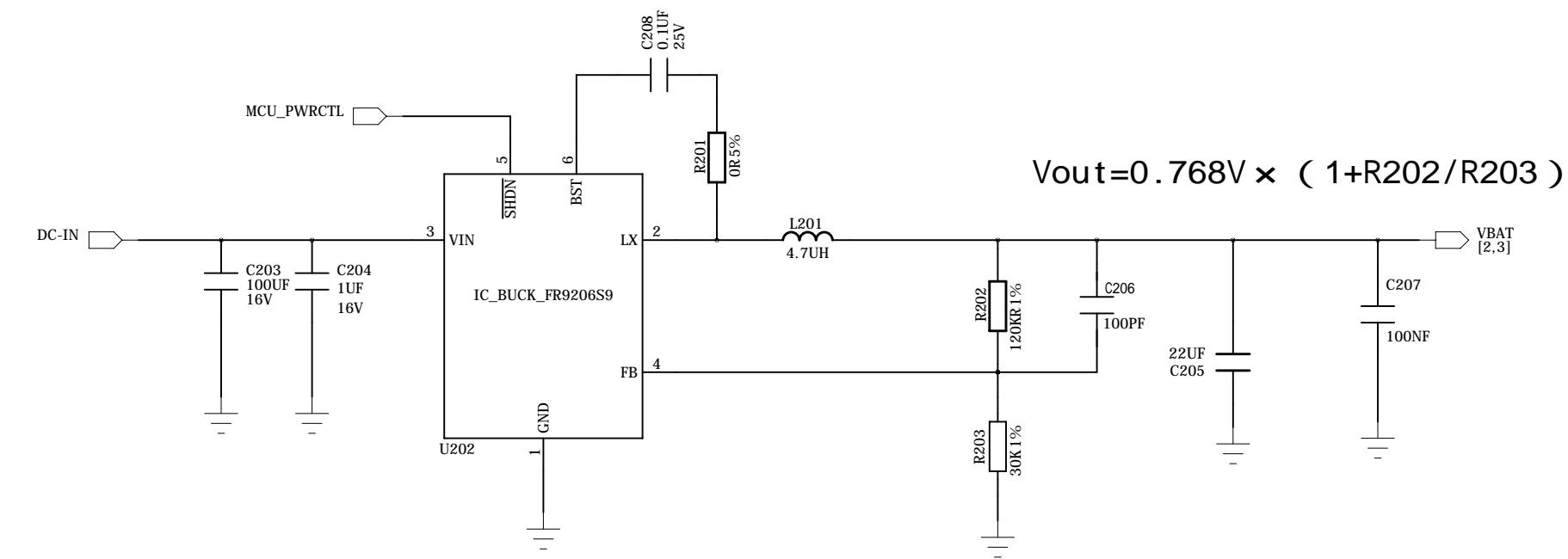
The total Capacitance depend on current ability

1. Place caps close to VBAT pins
2. VBAT trace should be short and wide (>2mm)
3. VBAT range is 3.4~4.2V, recommend 3.8V.

Debug uart TXD/RXD must connect to test pad to get debug log

For module emergency SW download

Power Design



Attention:

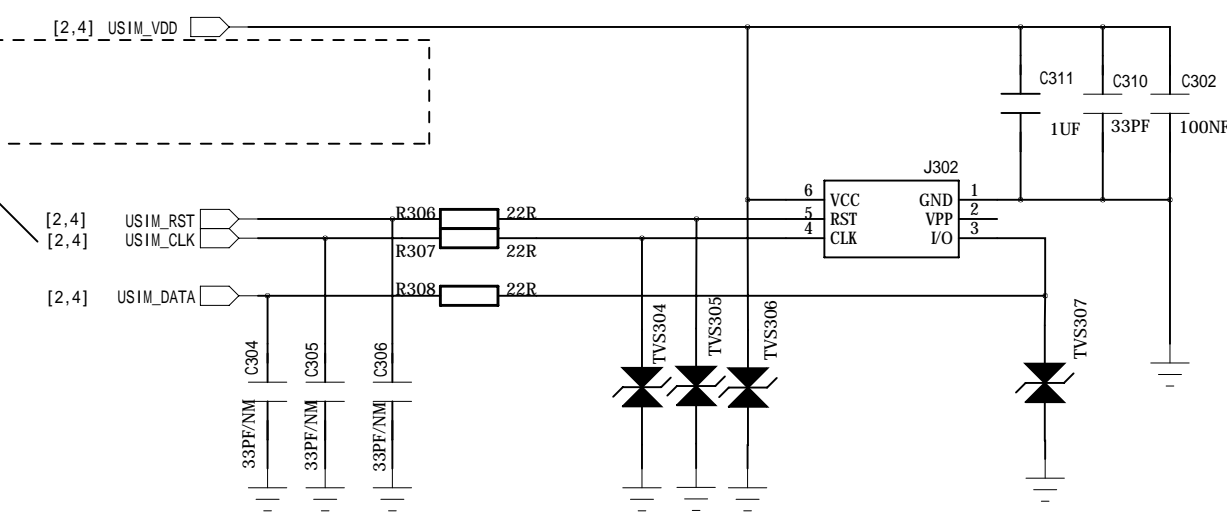
If any I/O port power domain is different from the MCU power domain, you need to add circuit isolation
 The peak power of the surge tube needs to be greater than 800W

USIM/USB/UART Interface

Choosing no hot plugging design for cost-down if hot plugging isn't needed

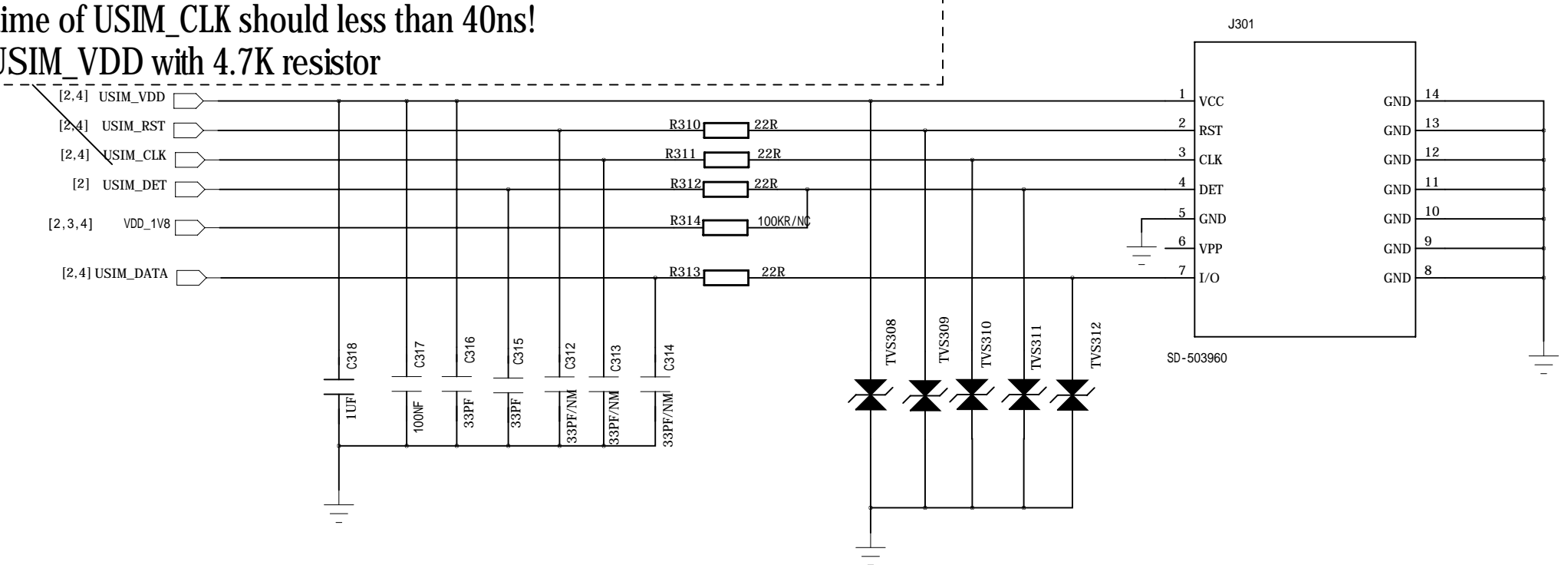
Rise time and Fall time of USIM_CLK should less than 40ns!
Internal pull-up to USIM_VDD with 4.7K resistor

USIM Socket



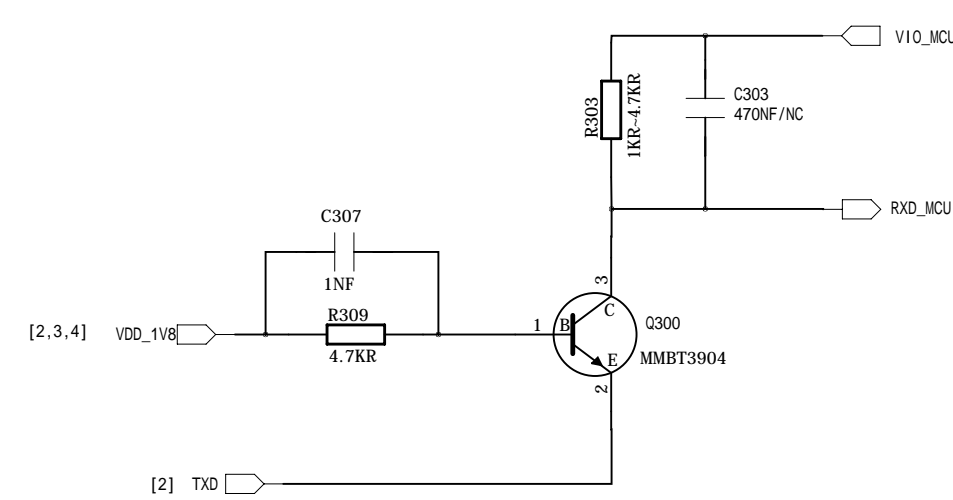
Hot plugging USIM Socket

Rise time and Fall time of USIM_CLK should less than 40ns!
Internal pull-up to USIM_VDD with 4.7K resistor

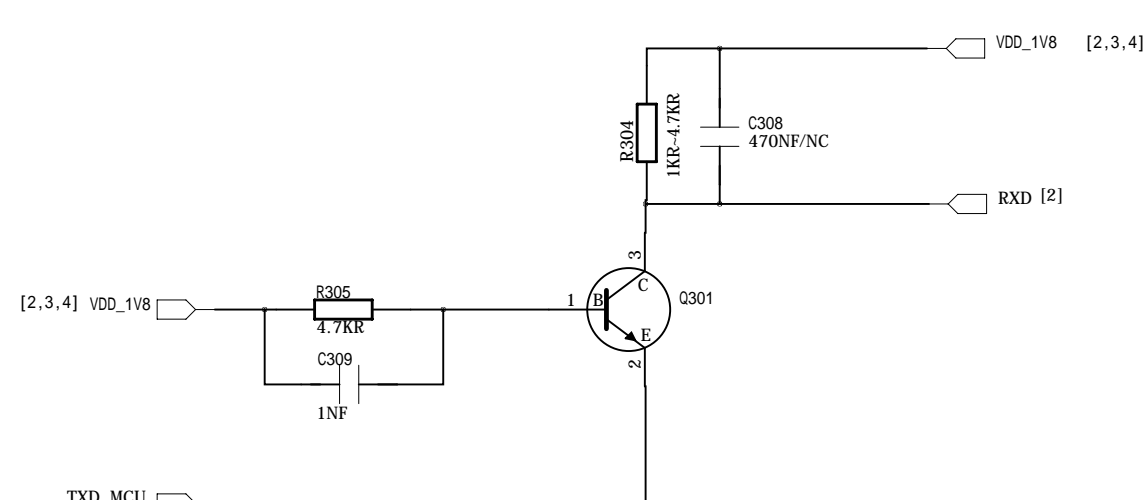


Attention:
This level shift circuit is only applied to the low speed UART baudrate;
If the baudrate is 4Mbps, customer should replace the transistor by N-MOSFET

TXD Circuit

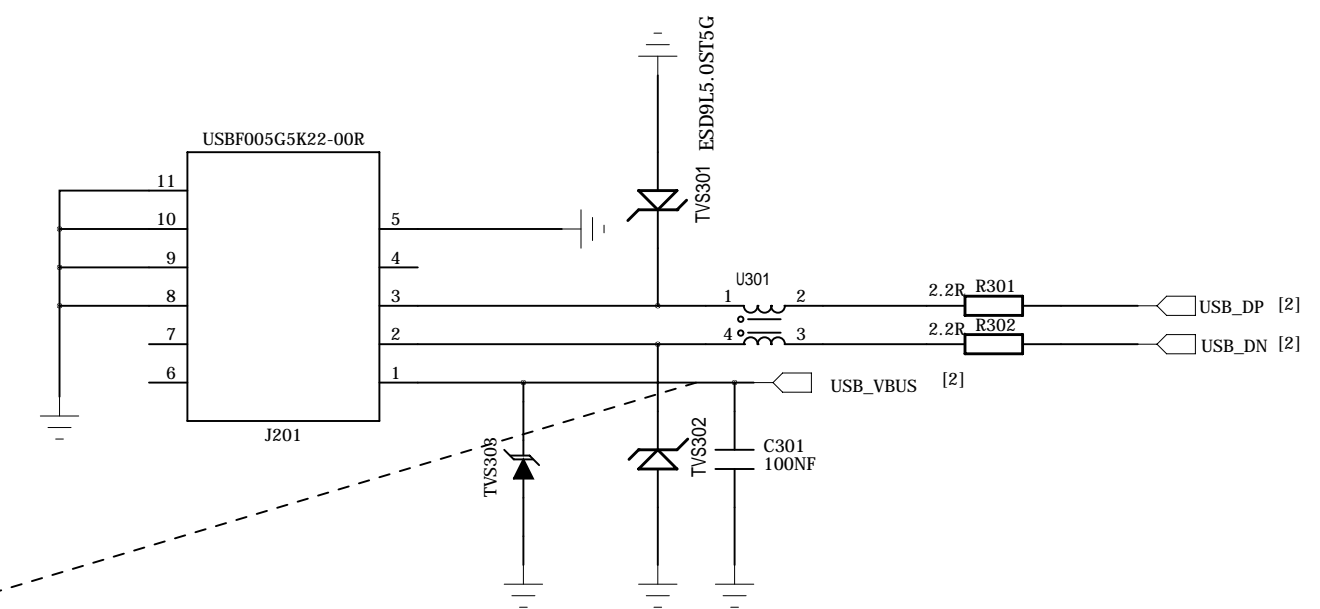


RXD Circuit



Pay attention to the leakage when using the Full-featured serial port or GPIO

USB Interface



1. Add ZENER Diode to get better surge performance!
2. USB_VBUS is 3.0~5.25V.

Recommend Junction capacitance < 0.5PF