

EK-ST50 User Guide

(EK-ST50H, EK-ST50HE, EK-ST50L, EK-ST50LE)



AcSiP Technology Corp.

www.acsip.com.tw

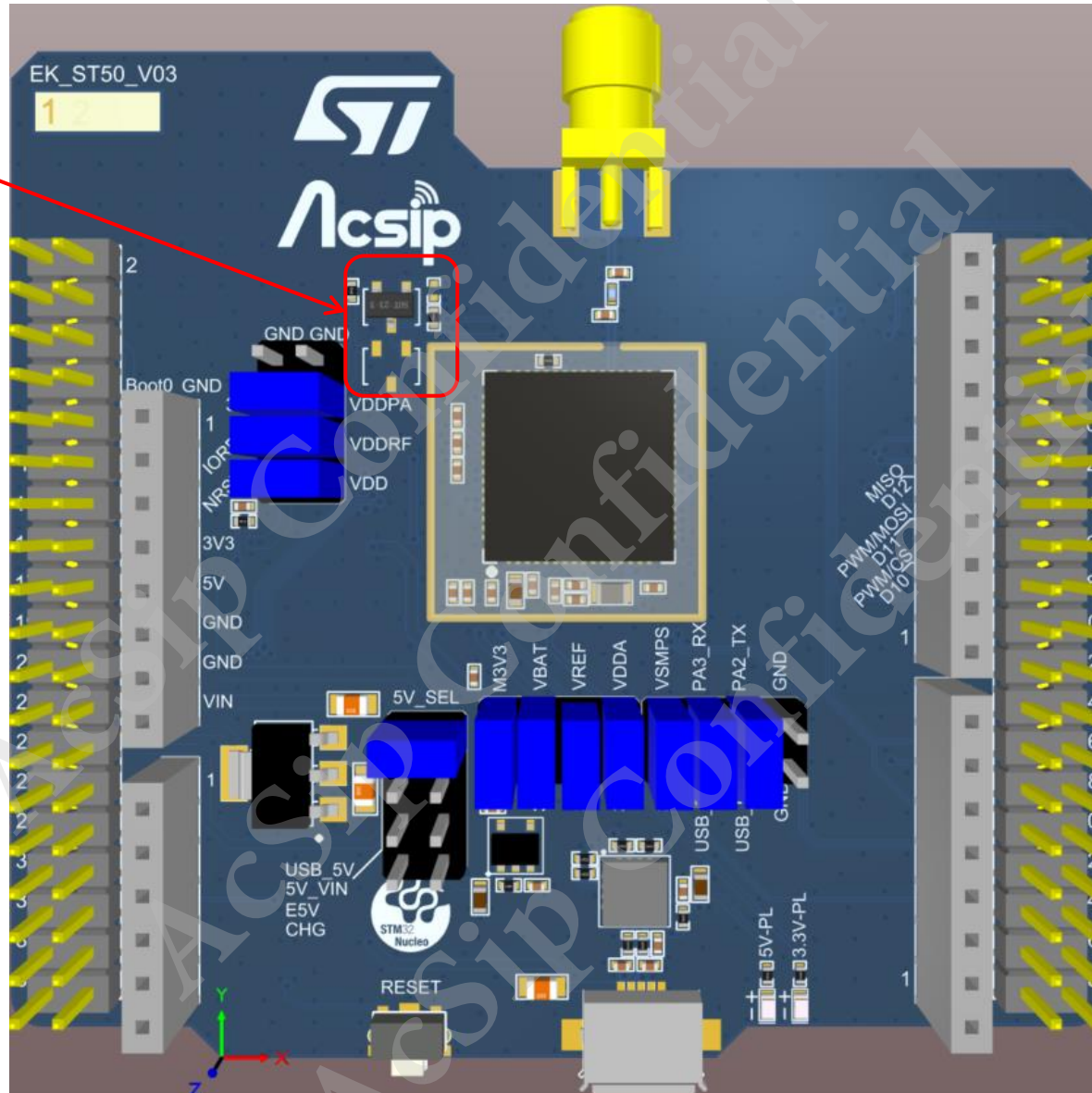
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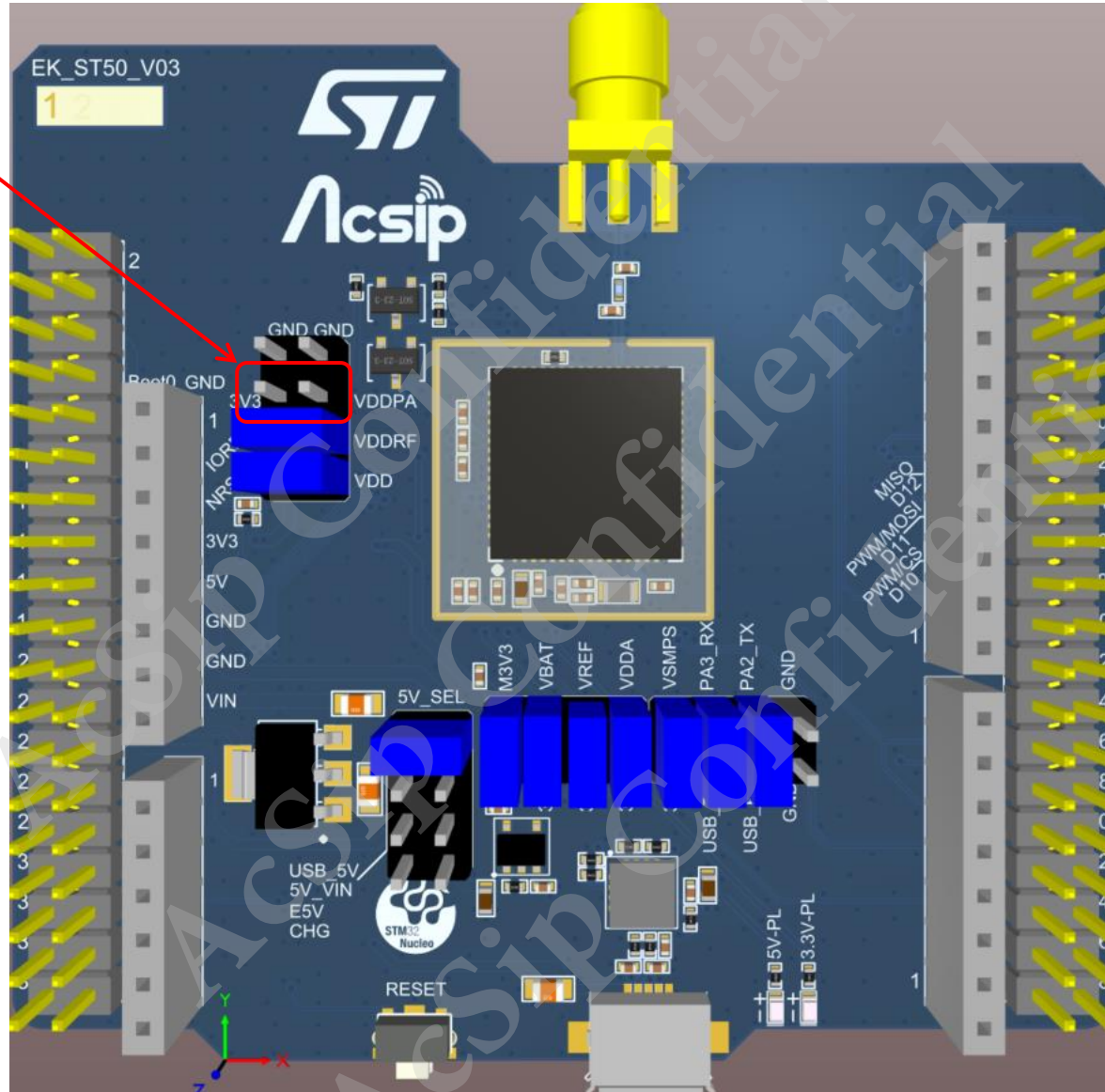
EK-ST50H & EK-ST50L

In the ST50H / ST50L architecture, Q1 and R3 is removed.

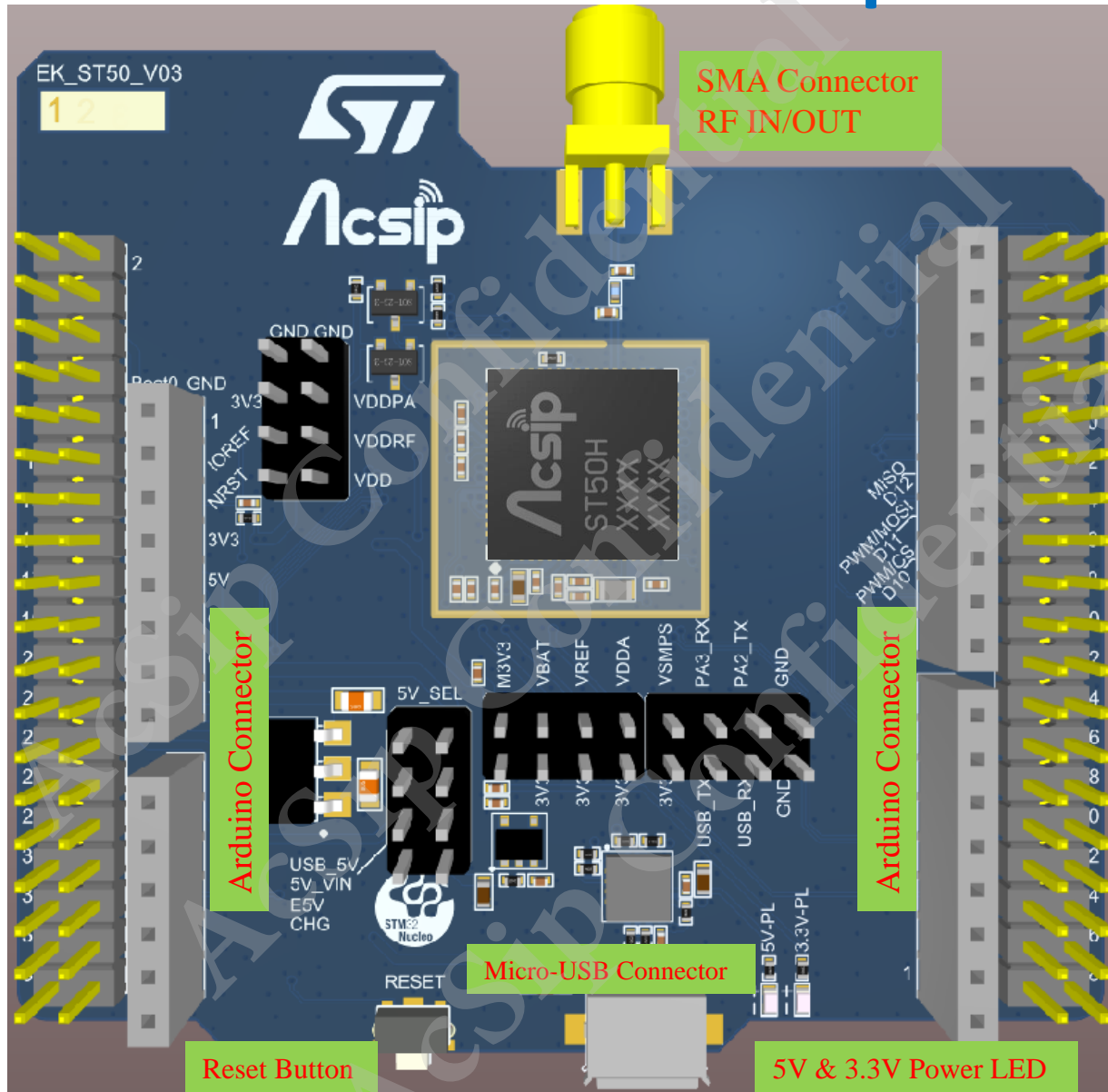


EK-ST50HE & EK-ST50LE

In ST50HE / ST50LE architecture, Jumper is removed.



PCB Connector Description



PCB Connector Description

Module's Power Supply Connector

5V Power Input Selection Connector

UART Port Connector

FTDI Chip FT230XQ USB to Basic UART

<https://www.ftdichip.com/Products/ICs/FT230X.html>

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Module's Power Supply Connector

5V Power Input Selection Connector

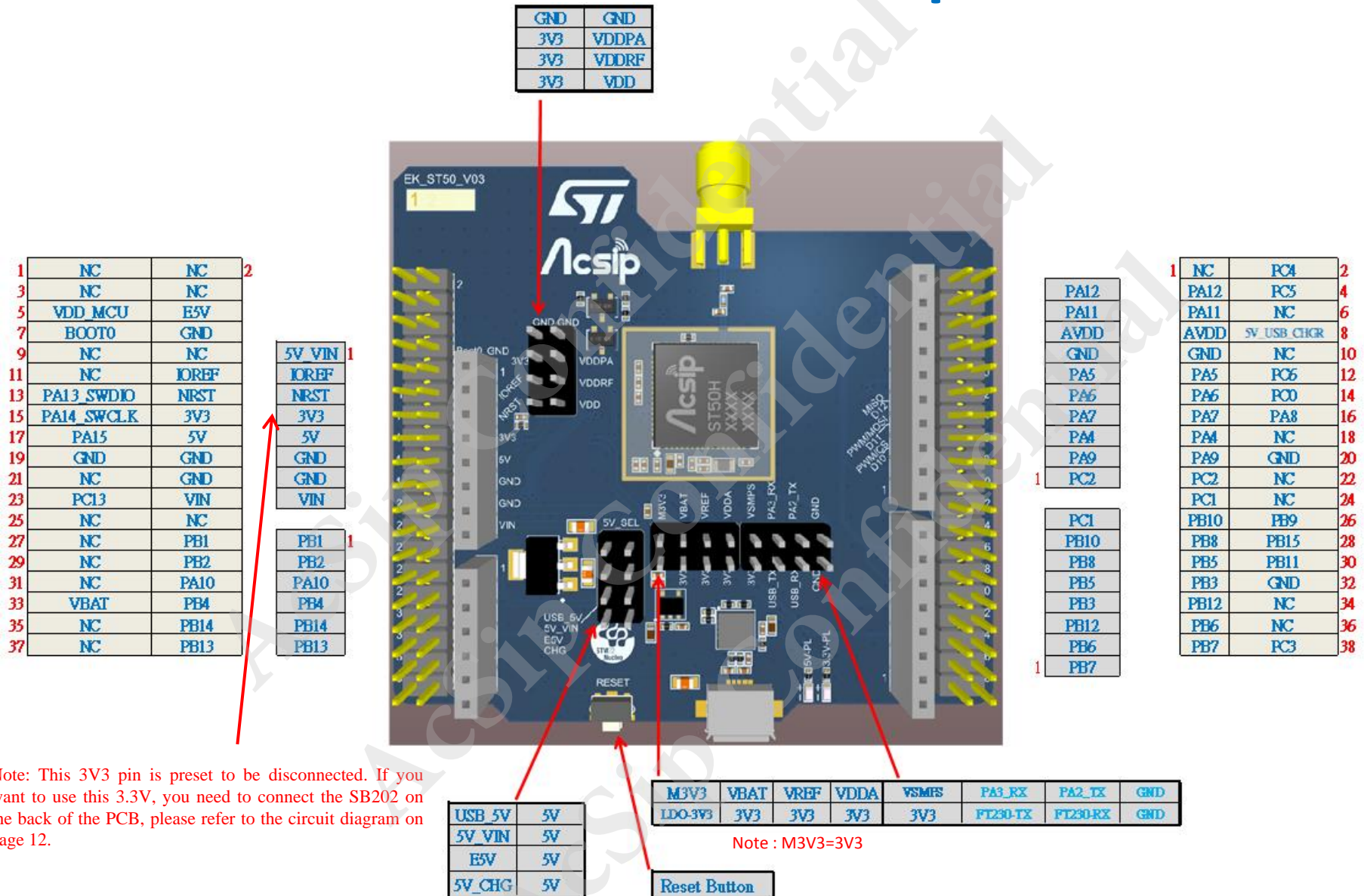


UART Port Connector

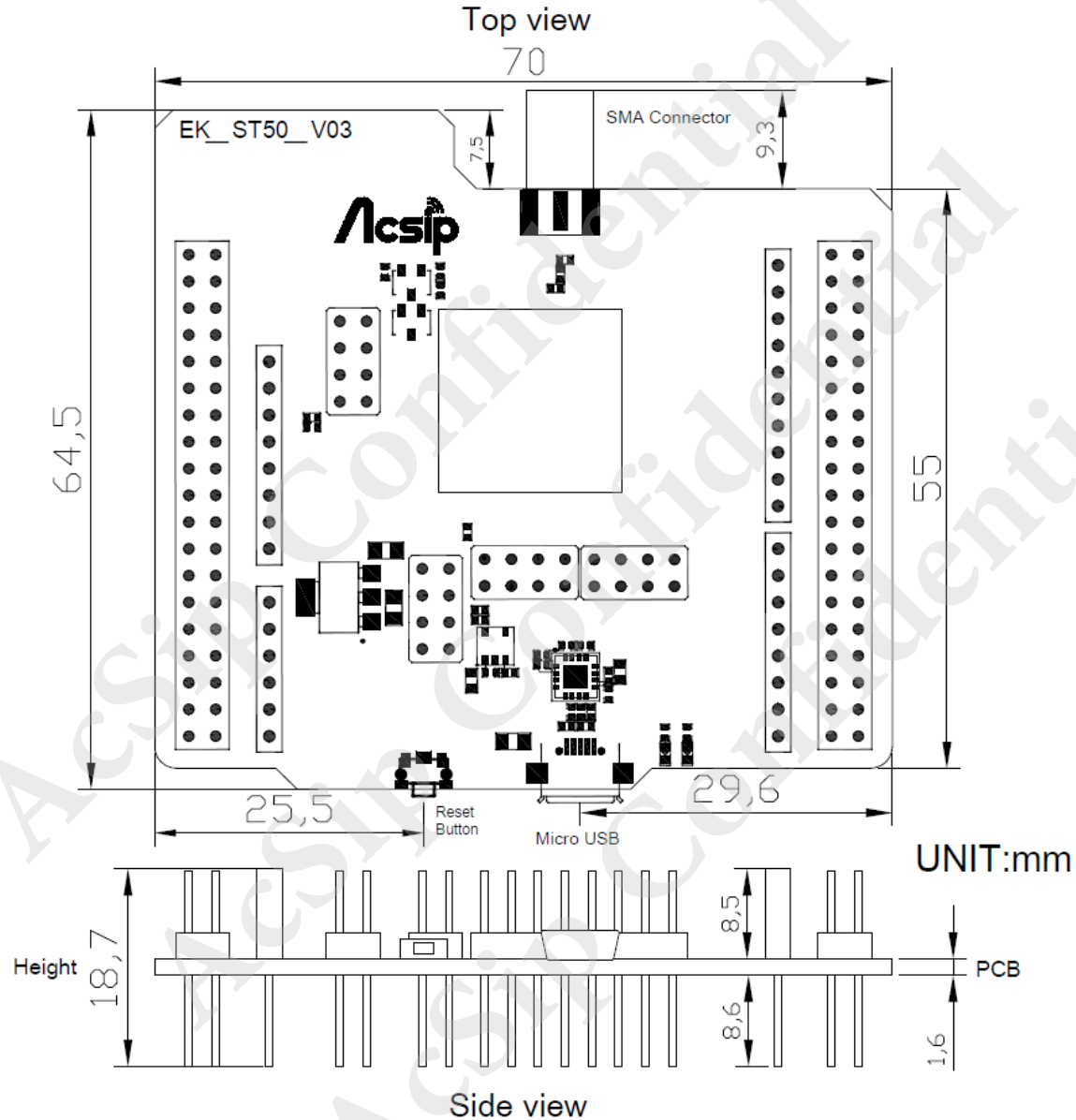
FTDI Chip FT230XQ USB to Basic UART

<https://www.ftdichip.com/Products/ICs/FT230X.html>

PCB Connector Description

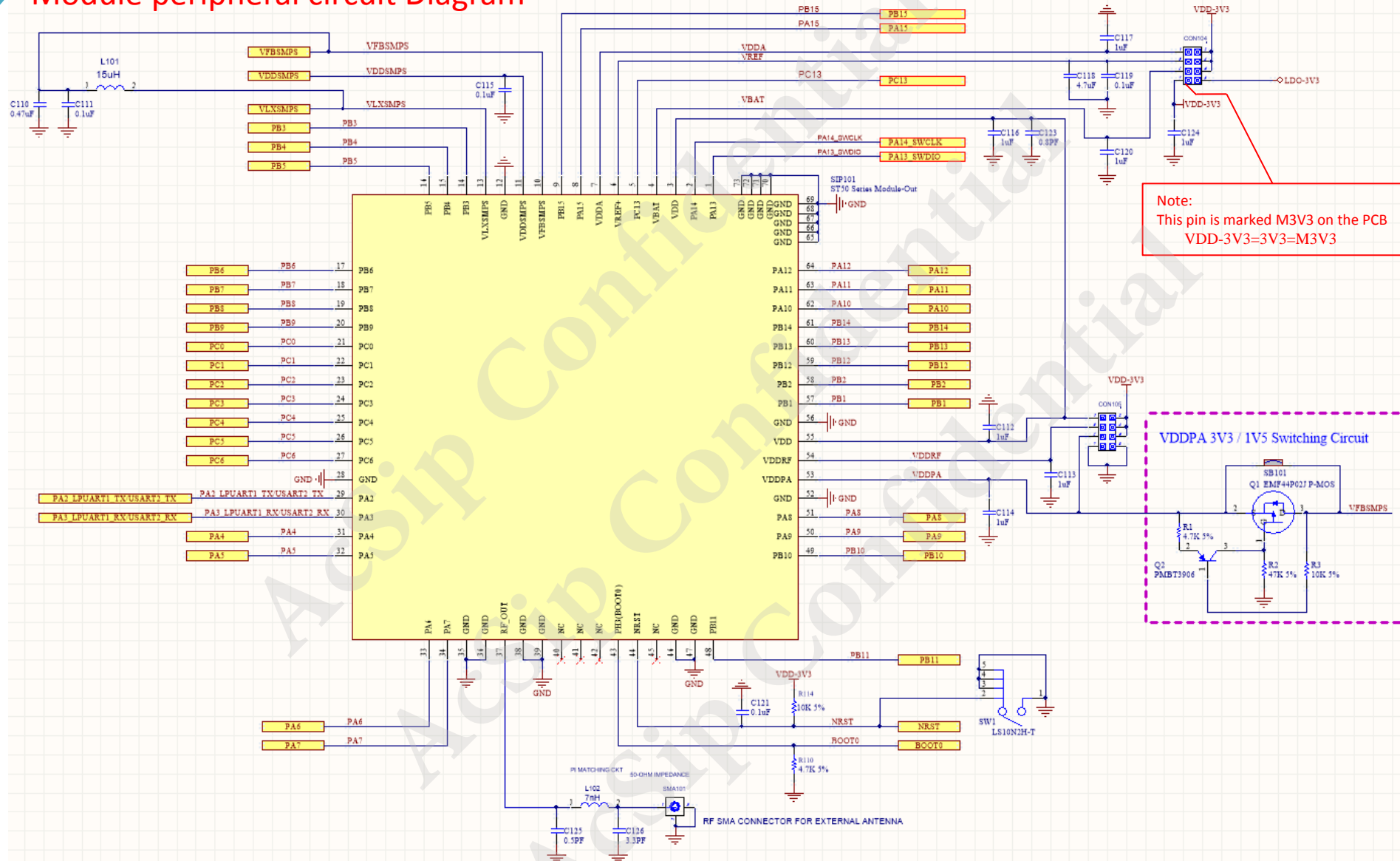


PCB Dimension



Schematic Diagram

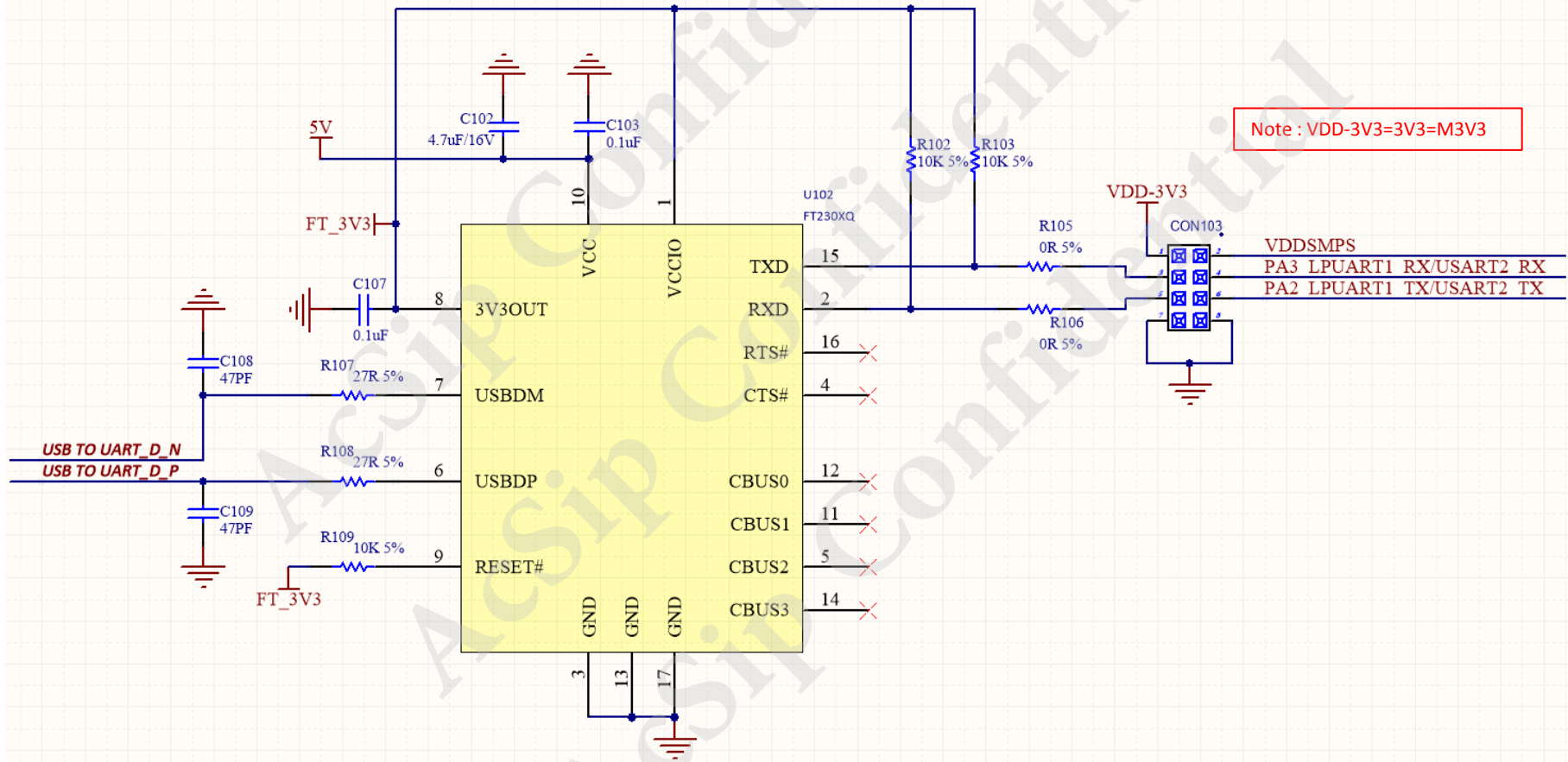
Module peripheral circuit Diagram



Schematic Diagram

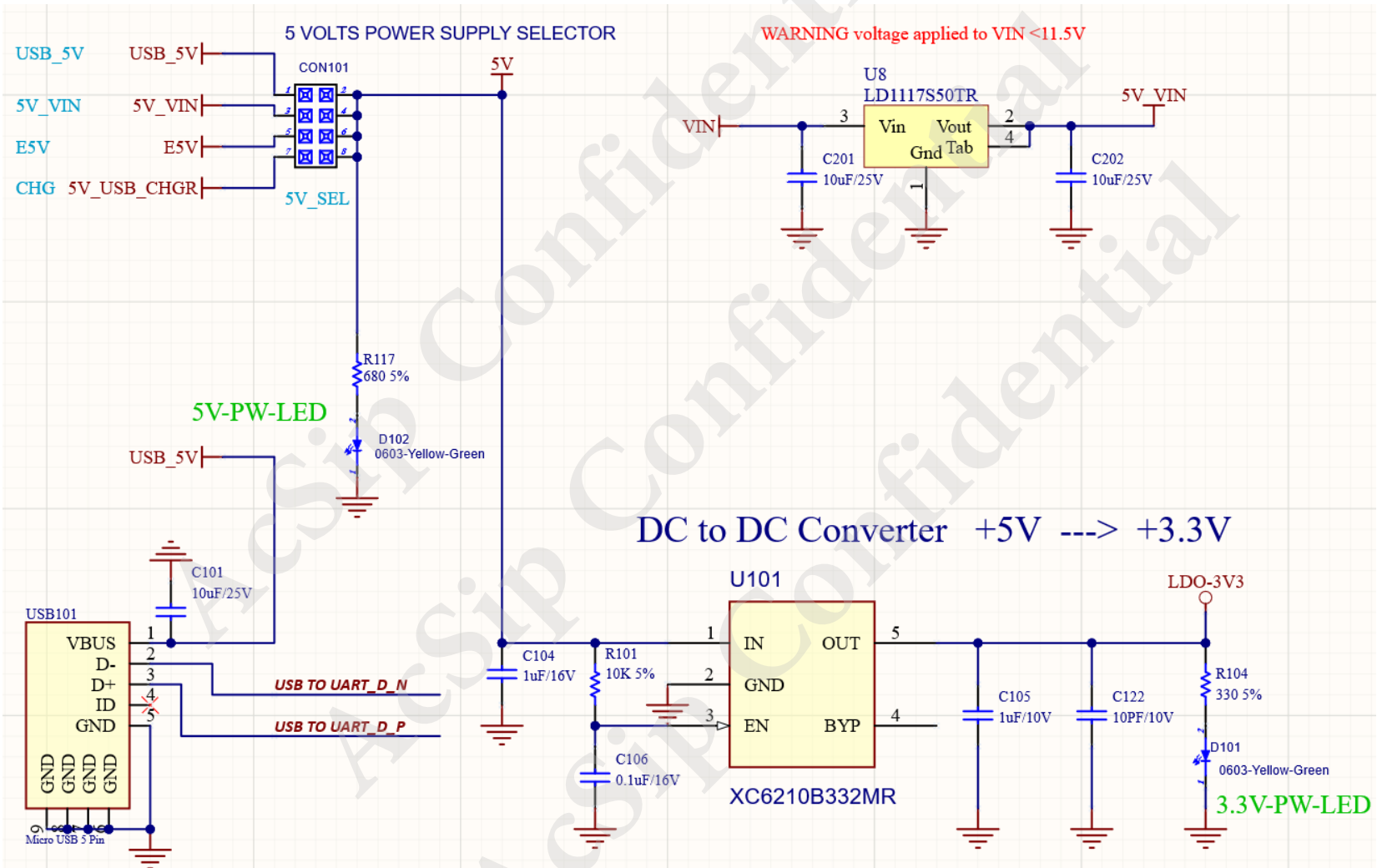
USB to UART Circuit Diagram

Uart to USB



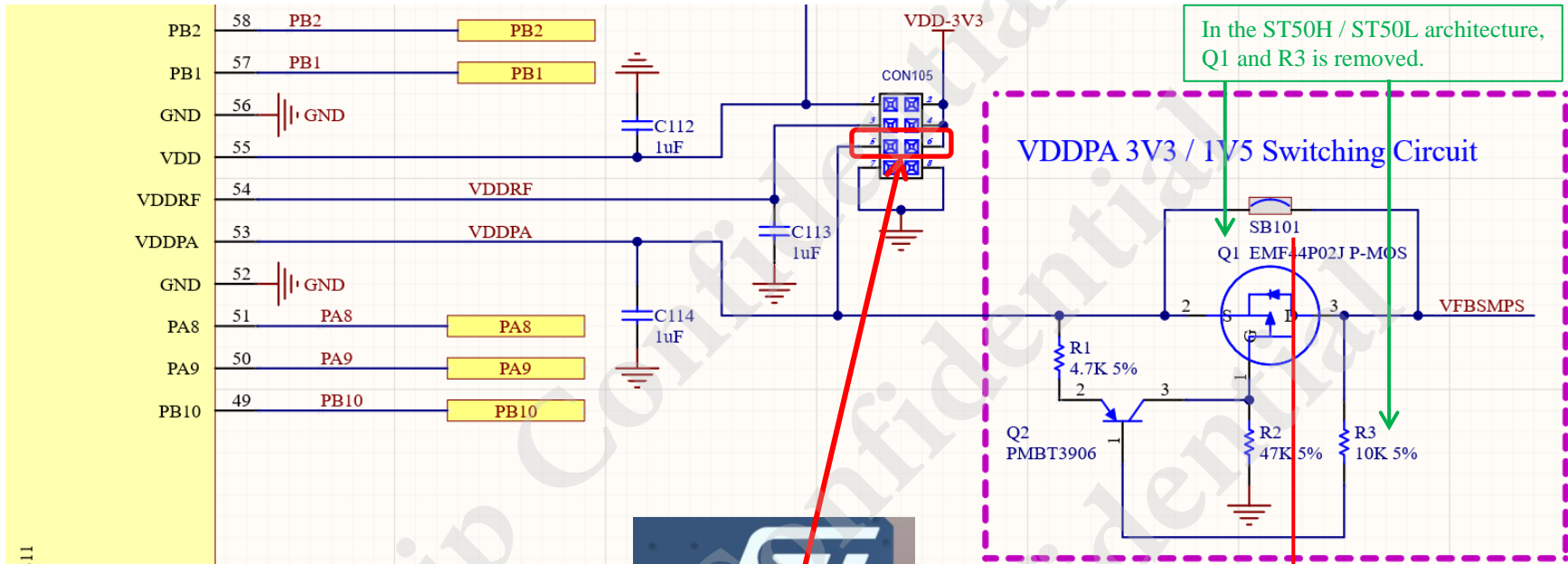
Schematic Diagram

Power Supply Circuit Diagram

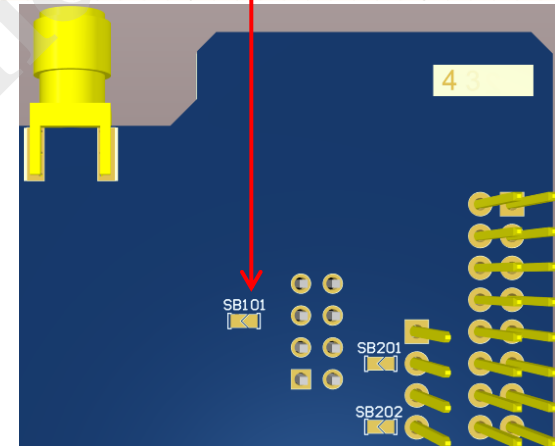


Schematic Diagram

VDDPA Switching Circuit Diagram

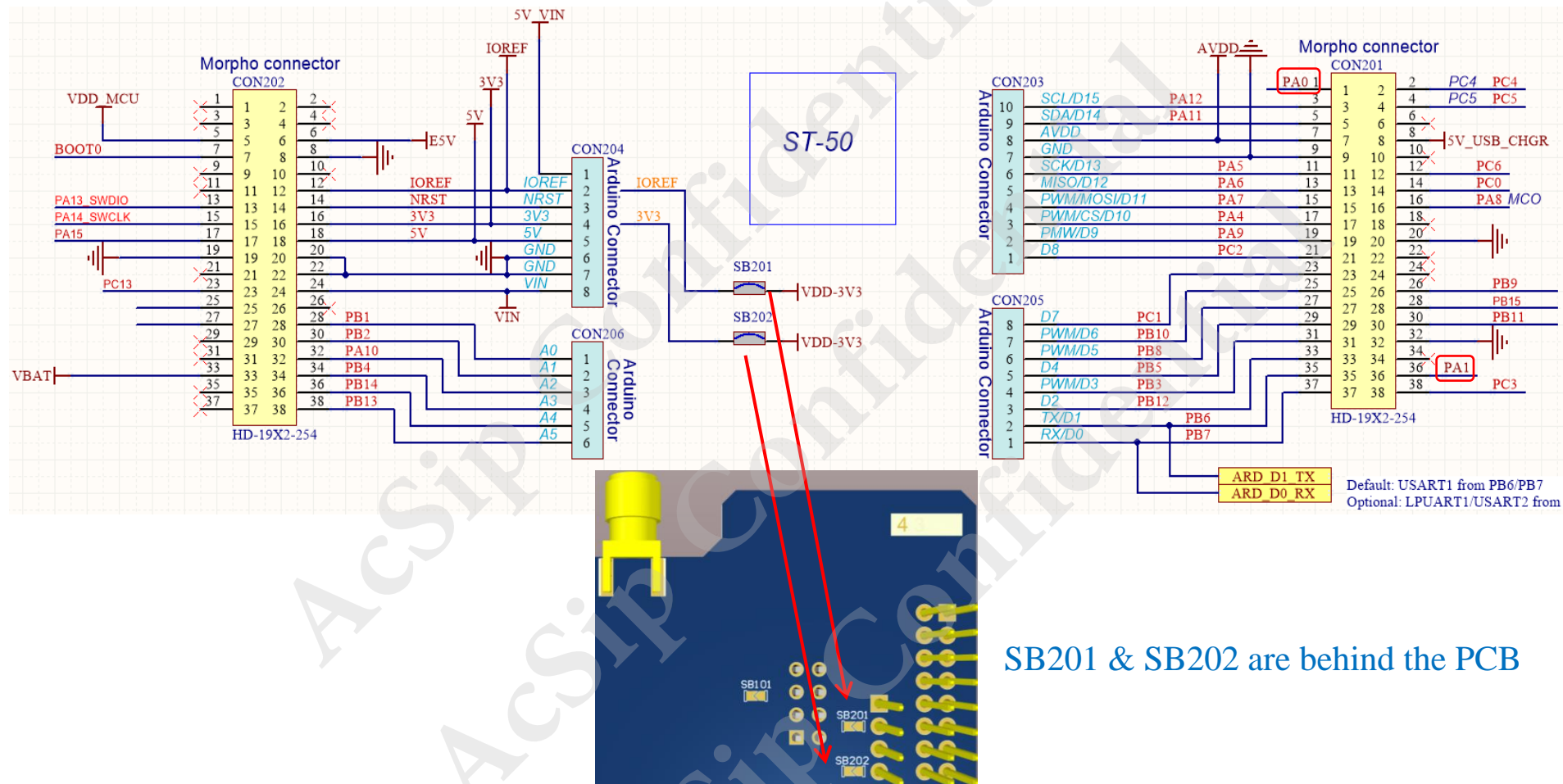


ST50HE & ST50LE: no jumpers required
ST50H & ST50L: jumper required



SB101 is behind the PCB

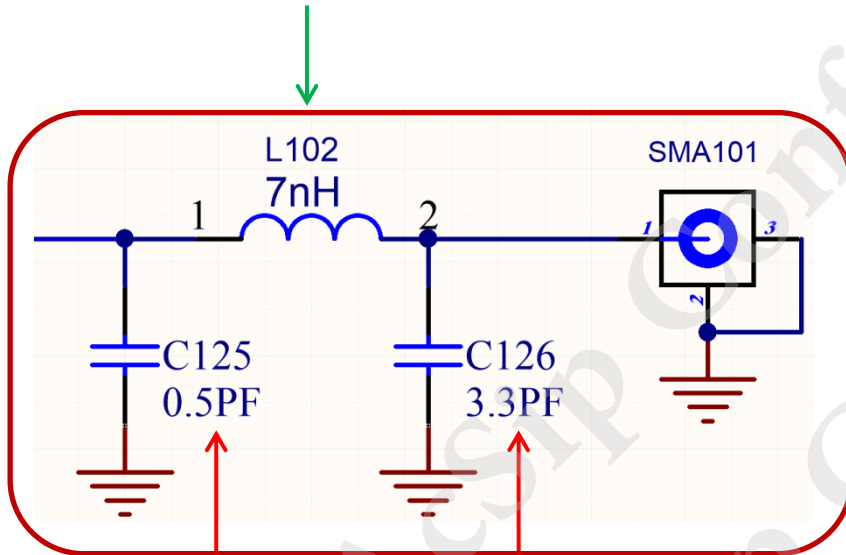
Pin definition Circuit Diagram



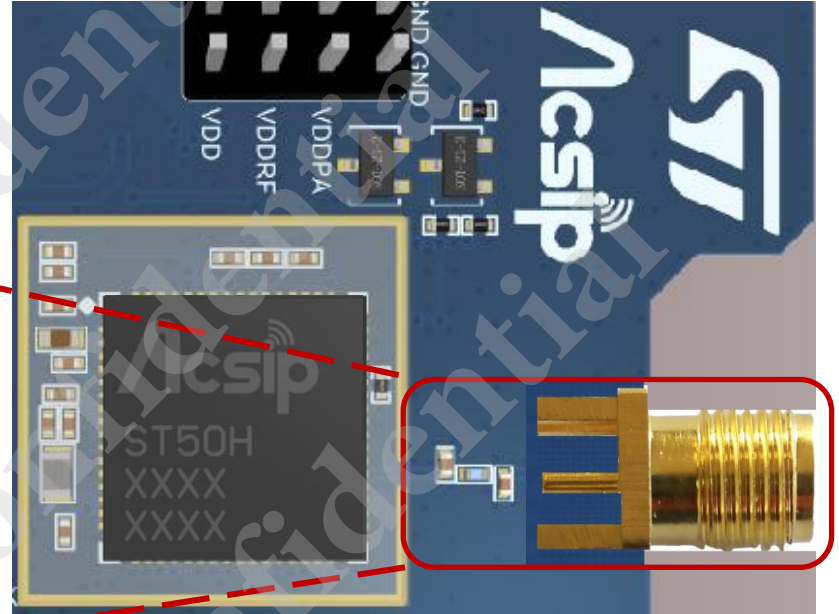
Note: The PA0 and PA1 pins in the SiP are already controlled by AcSiP software, so these two pins on the PCB are NC pins.

Low-Pass Filter Circuit for EMI Test

Inductor : Murata LQW15AN7N0G00



Capacitor : Murata GRM1555C1HR50BA01D
GRM1555C1H3R3CA01D



The screwed and glue-fixed antenna to connect on the SMA connector and provided in the blister is Antenna (RFA-08-C58-U-B70) from ARISTOTLE company. This antenna have been used for the FCC / CE certifications. This antenna must be used as a reference antenna for radiation test on EK-ST50H board.

Antenna Specifications

ARISTOTLE
ENTERPRISES INC.

Specifications

RFA-08-C58-U-B70

Specifications

Frequency range	863 –928 MHz
Peak gain	1.6dBi
Average gain	0.8dBi
VSWR	2.5 : 1 Max.
Polarization	Linear, vertical
Impedance	50 Ω
Connector	SMA PLUG

Environment & Mechanical Characteristics

Temperature	- 10°C to +55°C
Humidity	95% @ 25°C

