

## Module name

# Notecarrier-XS

| Index | Description |
|-------|-------------|
|-------|-------------|

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01      Cover

## 02 Block Diagram

## 03 IO Connectors

## 04 Notecard Connector

## 05 Power

## 05 Starnote Connector

## Design considerations

**SOFTWARE CONFIG NOTE:**

- Contains important notes for software development.
- Things like: pin configuration, timing requirements, IC configuration etc.

**DESIGN NOTE:**  
- Hardware notes

## Board support



**TOP**

FD6  
**BOTTOM**

PCB1

PCB

2200-914

DOC1

HW-E

100426

Title:  
**01\_COVER.SchDoc**

|                              |
|------------------------------|
| Project:                     |
| 100426_notecarrier-xs.PrjPCB |

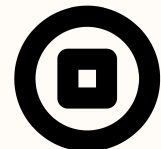
|                       |                                      |
|-----------------------|--------------------------------------|
| Company:              | Medarska 69/1, 10000 Zagreb, Croatia |
| Byte Lab Grupa d.o.o. | www.byte-lab.com                     |

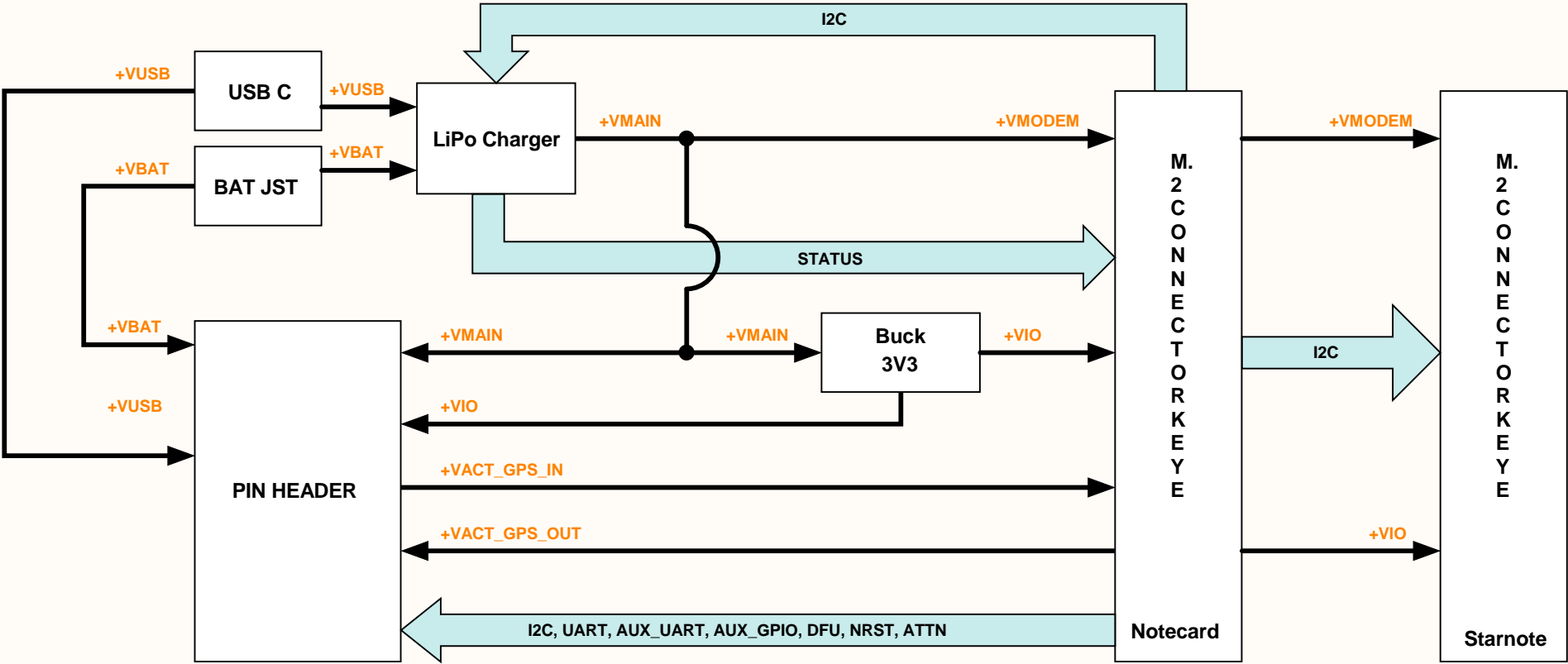
|         |           |           |           |
|---------|-----------|-----------|-----------|
| Author: | M. Marsic | Acceptor: | J. Wiedey |
|---------|-----------|-----------|-----------|

Sheet 1 of 5

Rev: 11

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| Format: A4 |
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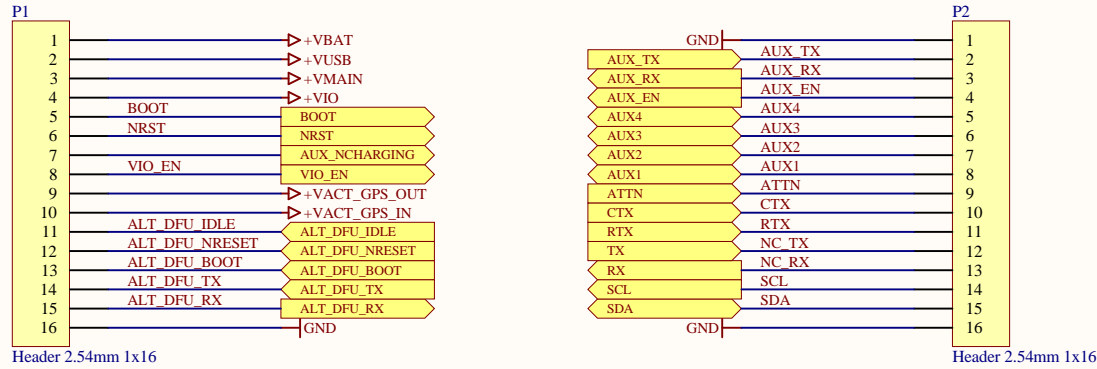




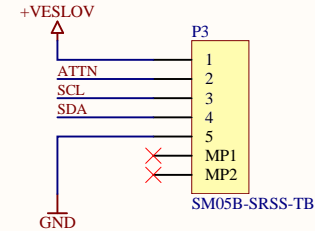
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| Project:<br>100426_notecarrier-xs.PrjPCB |           |  |            |
| Company:<br>Byte Lab Grupa d.o.o.        |           | Medarska 69/1, 10000 Zagreb, Croatia<br>www.byte-lab.com |            |
| Author:                                  | M. Marsic | Acceptor:  | J. Wiedey  |
| Sheet 2 of 5                             |           | Rev: 11  | Format: A4 |



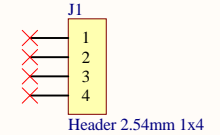
## I/O Pin Headers & Castellations



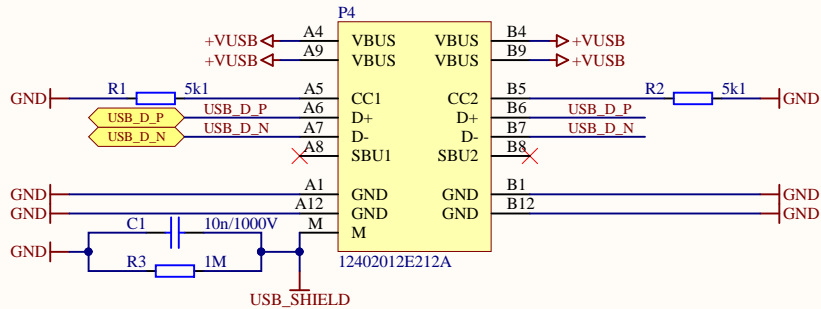
## ESLOV Connector



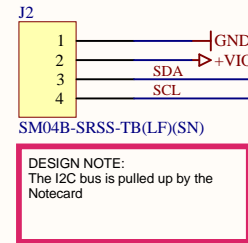
## Mech Support Connector



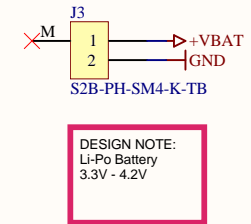
## USB C Connector



## QWIIC Connector



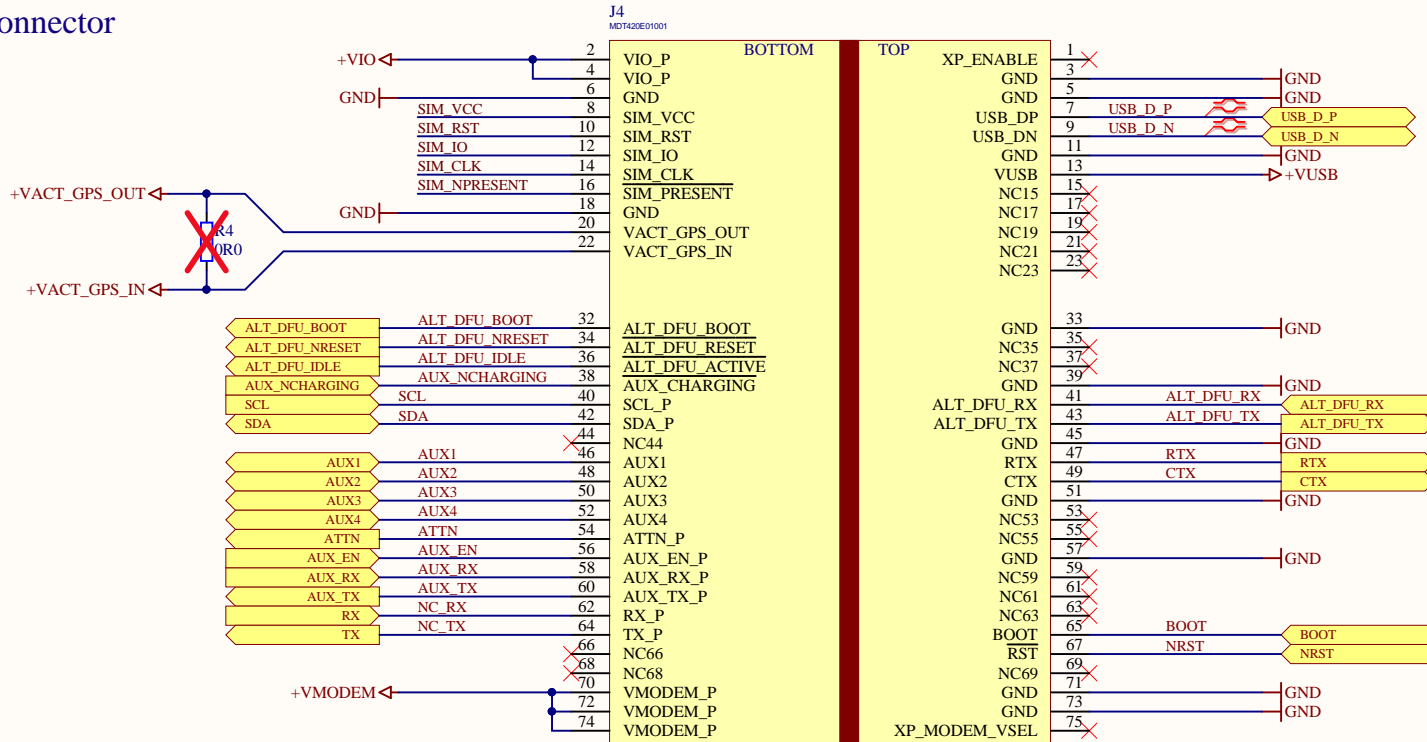
## Battery Connector



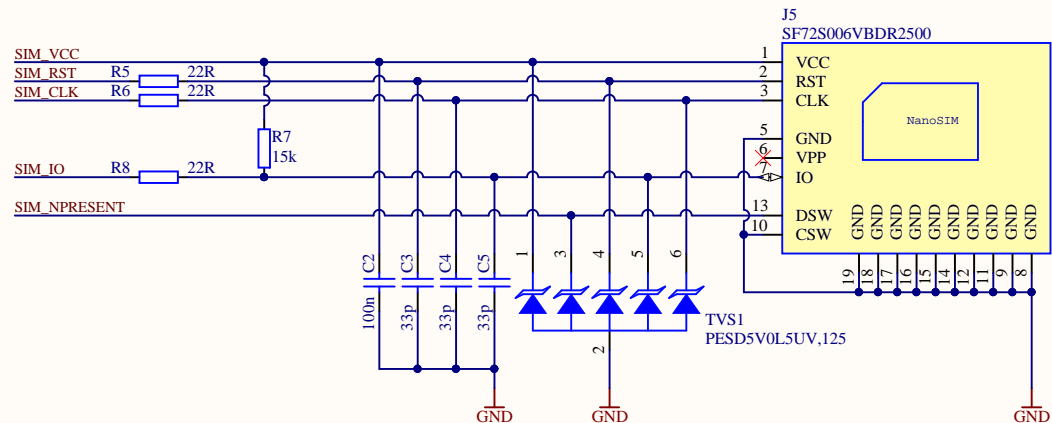
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| Project:<br>100426_notecarrier-xs.PrjPCB |                        |  |
| Company:<br>Byte Lab Grupa d.o.o.        |                        | Medarska 69/1, 10000 Zagreb, Croatia<br>www.byte-lab.com |
| Author:<br>M. Marsic                     | Acceptor:<br>J. Wiedey |  |
| Sheet 3 of 5                             | Rev: 11                | Format: A4   |



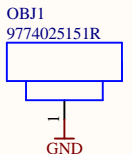
## Notecard Connector



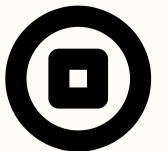
## SIM Card



## Notecard Support



|  |                        |  |
|--|------------------------|--|
| Title:<br><b>04_NOTECARD-CONNECTION.SchDoc</b> |                        |  |
| Project:<br>100426_notecarrier-xs.PrjPCB       |                        |  |
| Company:<br>Byte Lab Grupa d.o.o.              |                        | Medarska 69/1, 10000 Zagreb, Croatia<br>www.byte-lab.com |
| Author:<br>M. Marsic                           | Acceptor:<br>J. Wiedey |  |
| Sheet 4 of 5                                   | Rev: 11                | Format: A4   |



## Battery Charger w/ Power Path

### DESIGN NOTE:

Charger:  
- Default charging voltage: 4.2V  
- Default charging current: 320mA  
- Default termination current: 20mA  
- Default pre-charge current: 20mA  
- No battery thermal protection

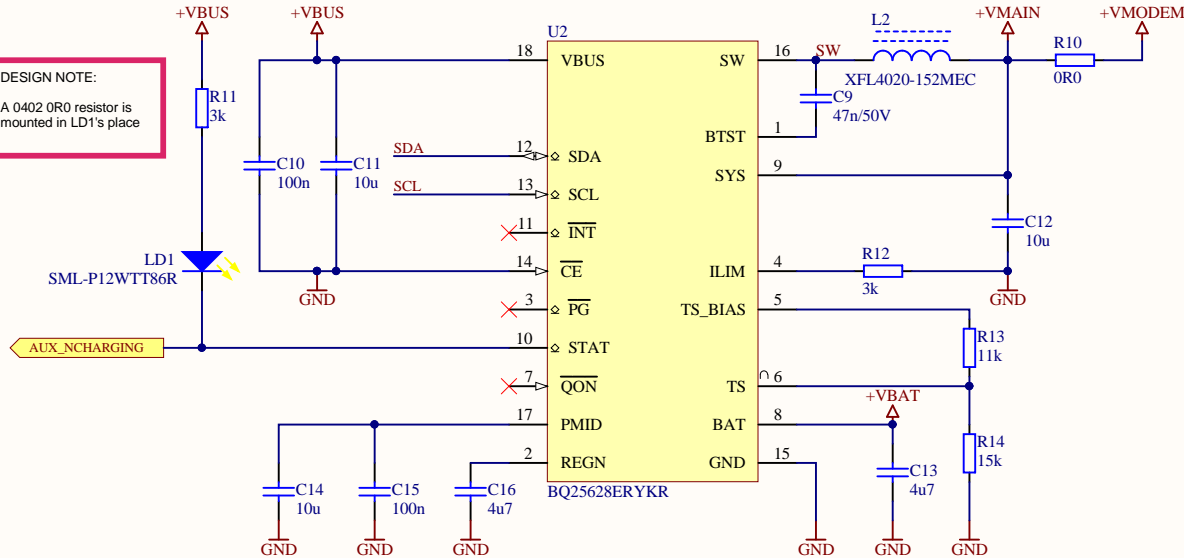
### DESIGN NOTE:

Power Path:  
- Input current limit: 3.5A  
- 26mOhm reverse blocking transistor  
- 15mOhm battery transistor

Buck Regulator:  
- 1.5MHz frequency  
- Input Voltage: 5V  
- Output Voltage: 3.3-4.2V  
- Peak current: 2.5A

### DESIGN NOTE:

A 0402 0R0 resistor is mounted in LD1's place

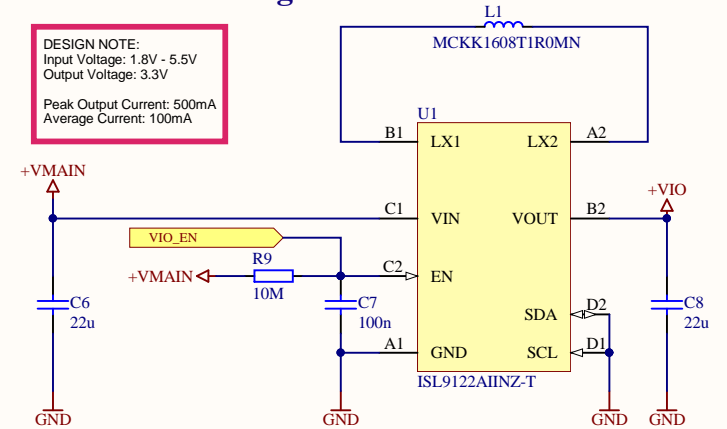


## 3V3 Buck/Boost Regulator

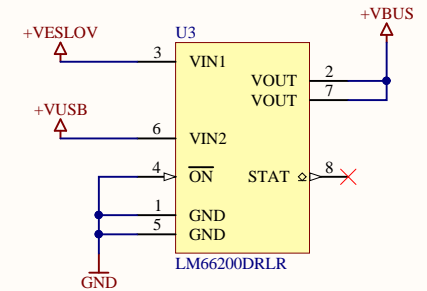
### DESIGN NOTE:

Input Voltage: 1.8V - 5.5V  
Output Voltage: 3.3V

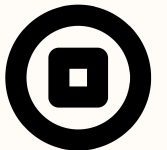
Peak Output Current: 500mA  
Average Current: 100mA



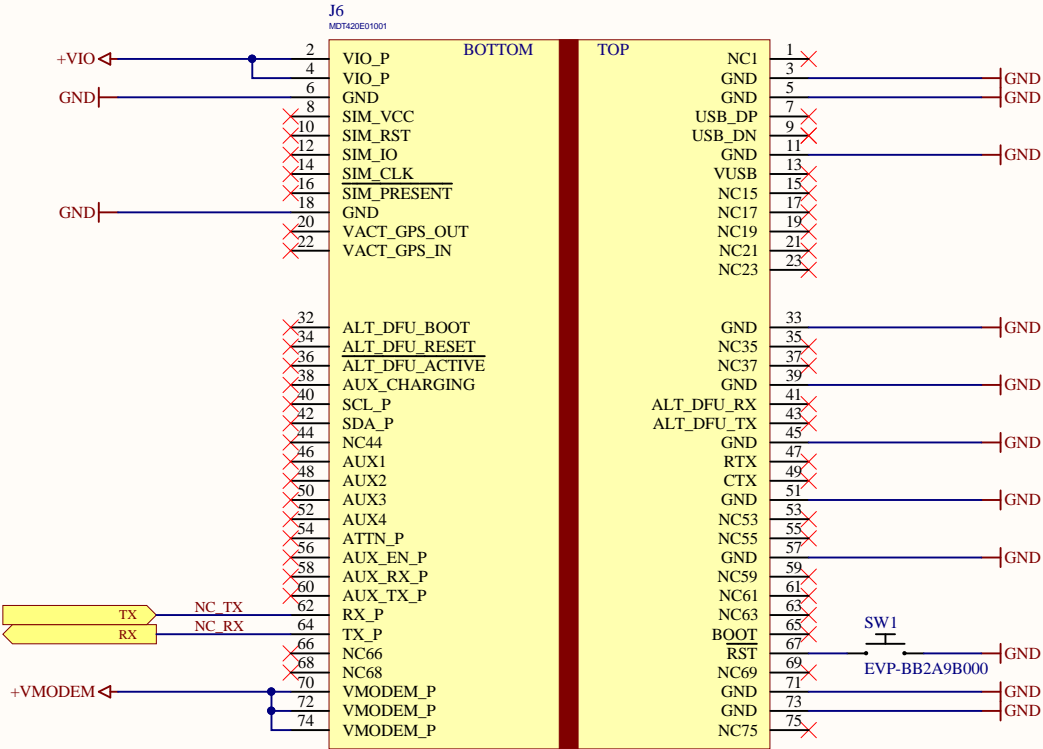
## VBUS ORing



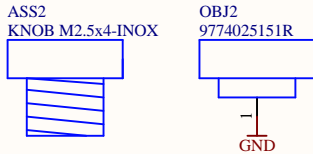
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| Company:<br>Byte Lab Grupa d.o.o.        |           | Medarska 69/1, 10000 Zagreb, Croatia<br>www.byte-lab.com |            |
| Author:                                  | M. Marsic | Acceptor:  | J. Wiedey  |
| Sheet 5 of 5                             |           | Rev: 11  | Format: A4 |



Starnote Connector



Starnote Support



|  |                     |  |
|--|---------------------|--|
| Title:<br>06_STARNOTE-CONNECTION.SchDoc  |                     |  |
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| Company:<br>Byte Lab Grupa d.o.o.        |                     | Medarska 69/1, 10000 Zagreb, Croatia<br>www.byte-lab.com |
| Author: M. Marsic                        | Acceptor: J. Wiedey |  |
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