

A

A

B

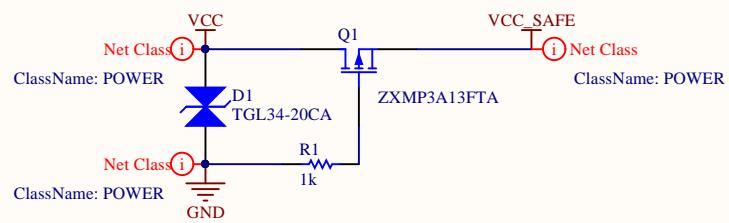
B

C

C

D

D



Confidential / Not for distribution !



Document name: Input Protection.SchDoc

Designer Name: Wojciech Grędel

Date/Time: 2/27/2018 3:15:25 PM Revision: 1

A

A

B

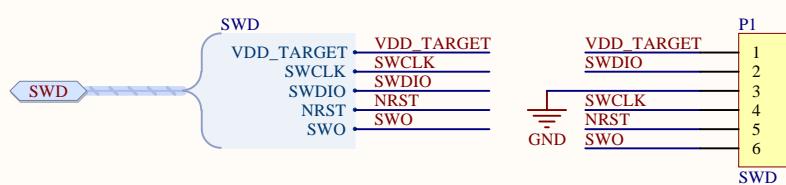
B

C

C

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D

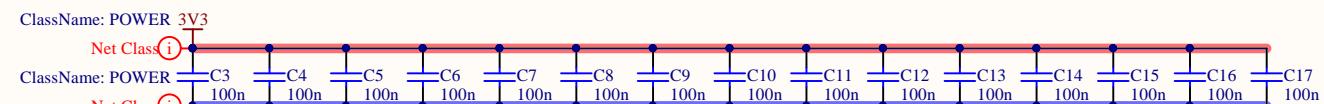
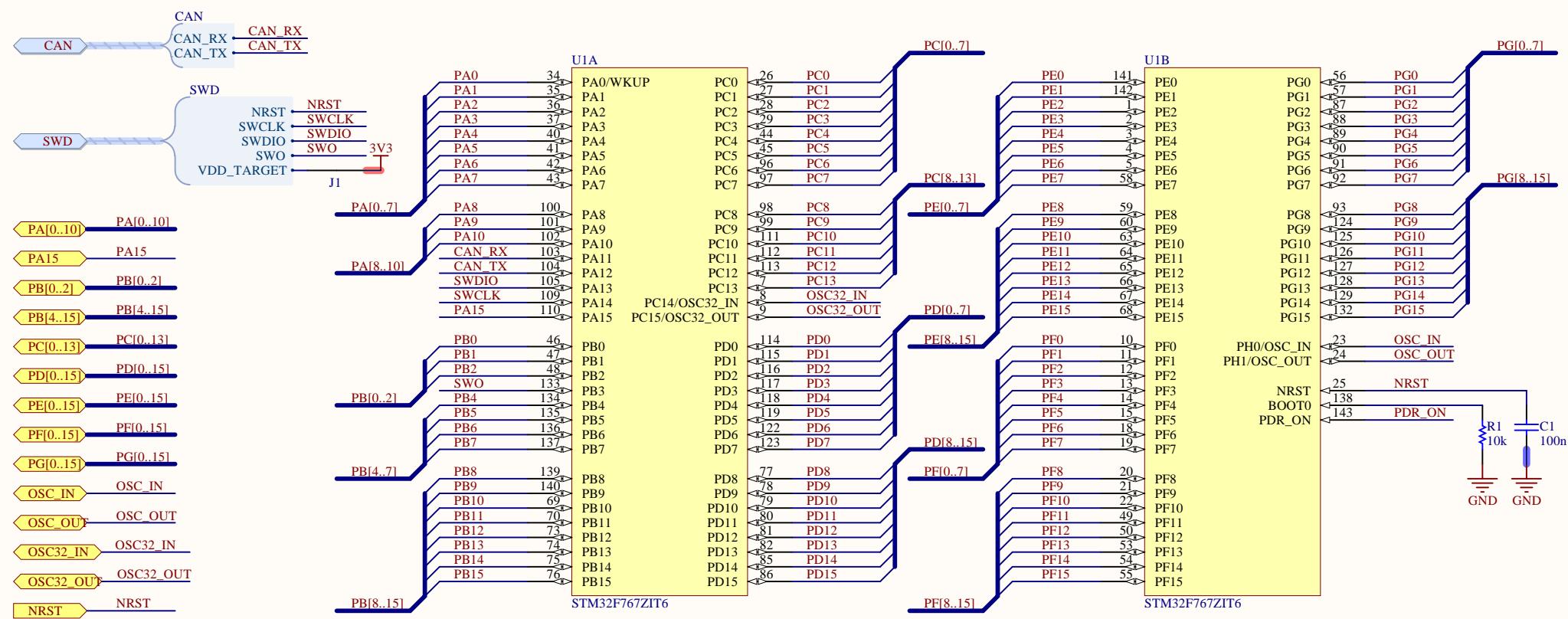


Confidential / Not for distribution !

Document name: SWD Connector.SchDoc

Designer Name: Wojciech Grędel

Date/Time: 2/27/2018 3:15:25 PM Revision: 3



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Document name: STM32F767ZIT6.SchDoc

Designer Name: Wojciech Grędel

Date/Time: 2/27/2018 3:15:25 PM Revision: 1

A

A

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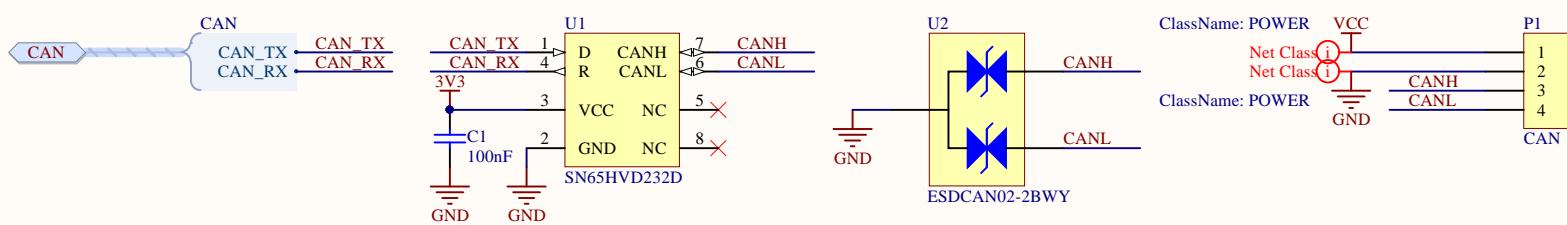
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Document name: CAN Transceiver SN65HVD232D.SchDoc

Designer Name: Wojciech Grędel

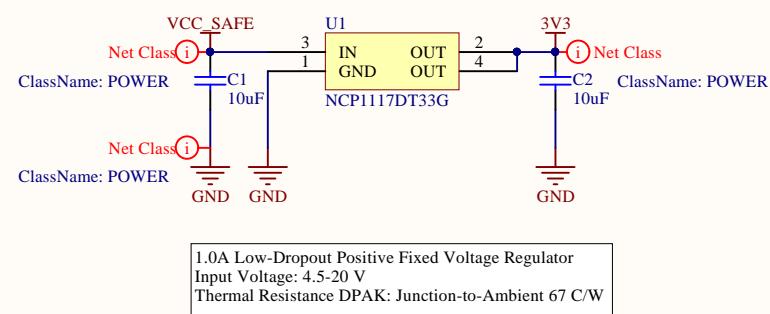
Date/Time: 2/27/2018 3:15:25 PM Revision: 3

A

A

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Document name: 3V3 NCP1117DT33G.SchDoc

Designer Name: Wojciech Grędel

Date/Time: 2/27/2018 3:15:25 PM Revision: 4

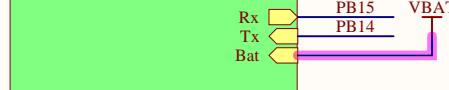
U\_CAN Transceiver SN65HVD232D  
CAN Transceiver SN65HVD232D



U\_SWD Connector  
SWD Connector



U\_GPS  
GPS.SchDoc



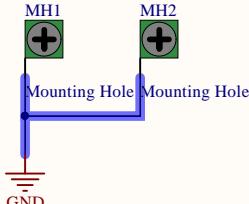
U\_MicroSDCard  
MicroSDCard.SchDoc



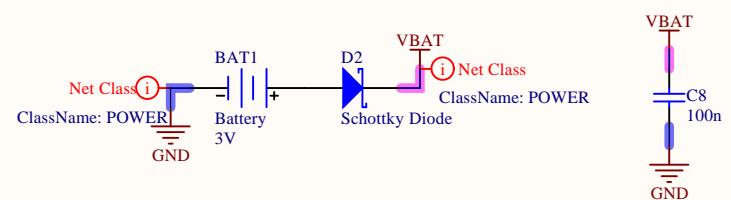
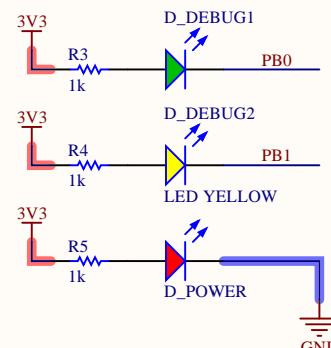
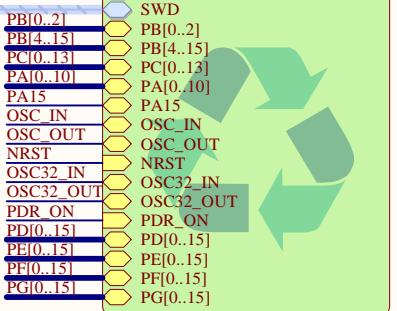
U\_3V3 NCP1117DT33G  
3V3 NCP1117DT33G



U\_Input Protection  
Input Protection

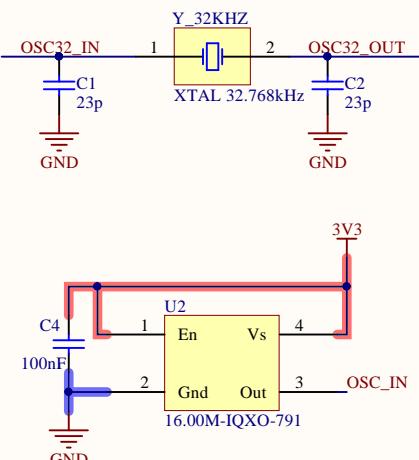
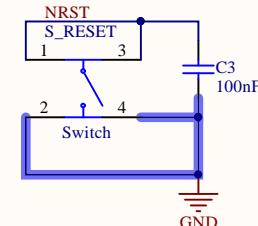


U\_STM32F767ZIT6  
STM32F767ZIT6



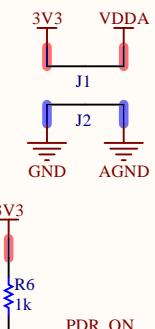
SD\_CARD

- SD IRQ → PD0
- SD DO/DAT0 → PC8
- SD DI/CMD → PD2
- SD CS/CD → PD1
- SD CLK → PC12



where (for 32.768kHz):  
 $C_L = 12.5 \text{ pF}$   
 $C_S = 1.05\text{pF}$   
 $C_L - C_S = 11.45\text{pF}$   
 $C_{L1} = C_{L2} = 23\text{pF}$

Based on STM32 Oscillator design guide:  
 $C_L = (C_{L1} \times C_{L2}) / (C_{L1} + C_{L2}) + C_S$



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Project name: EL-04 Data Logger.PnjPcb

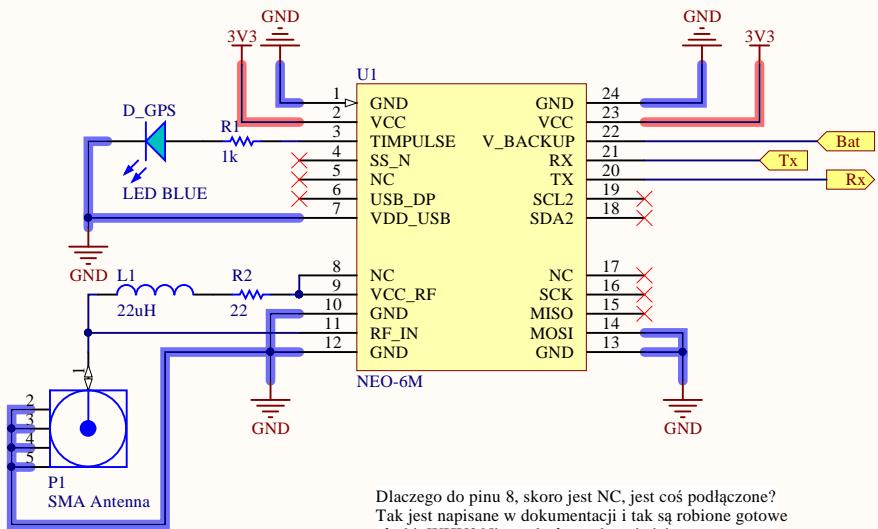
Sheet: 2 of 8

Document name: Main.SchDoc

Car No. 5

Designer Name: Author

Date/Time: 2/27/2018 3:15:25 PM Revision: Rev



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Project name: EL-04 Data Logger.PjPcb

Sheet: 3 of 8

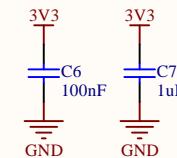
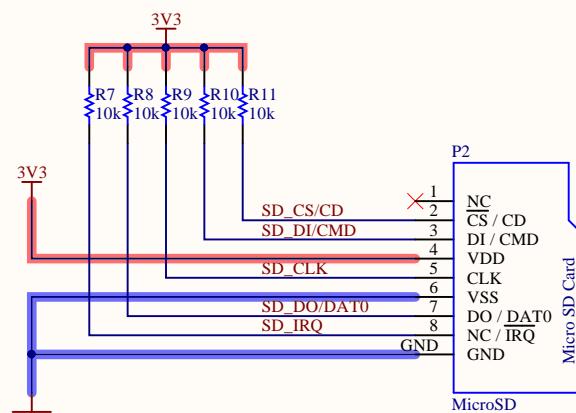
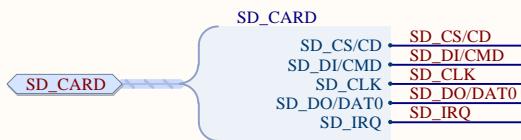
Document name: GPS.SchDoc

Car No. 5

Designer Name: Author

Date/Time: 2/27/2018 3:15:25 PM Revision: Rev

A



Current consumption:  
30mA - typical.  
Some cards are spec'd to be up to 100mA

B

A

C

B

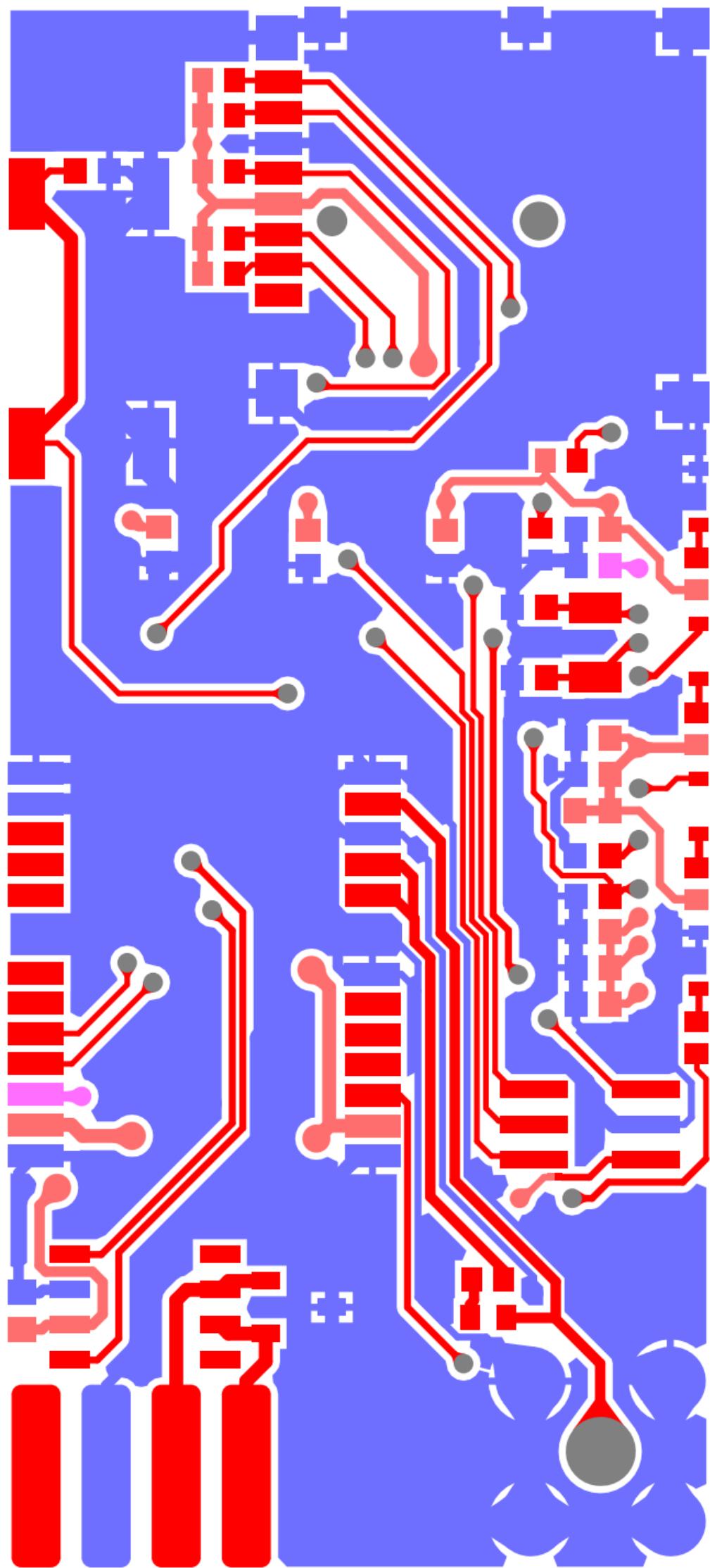
D

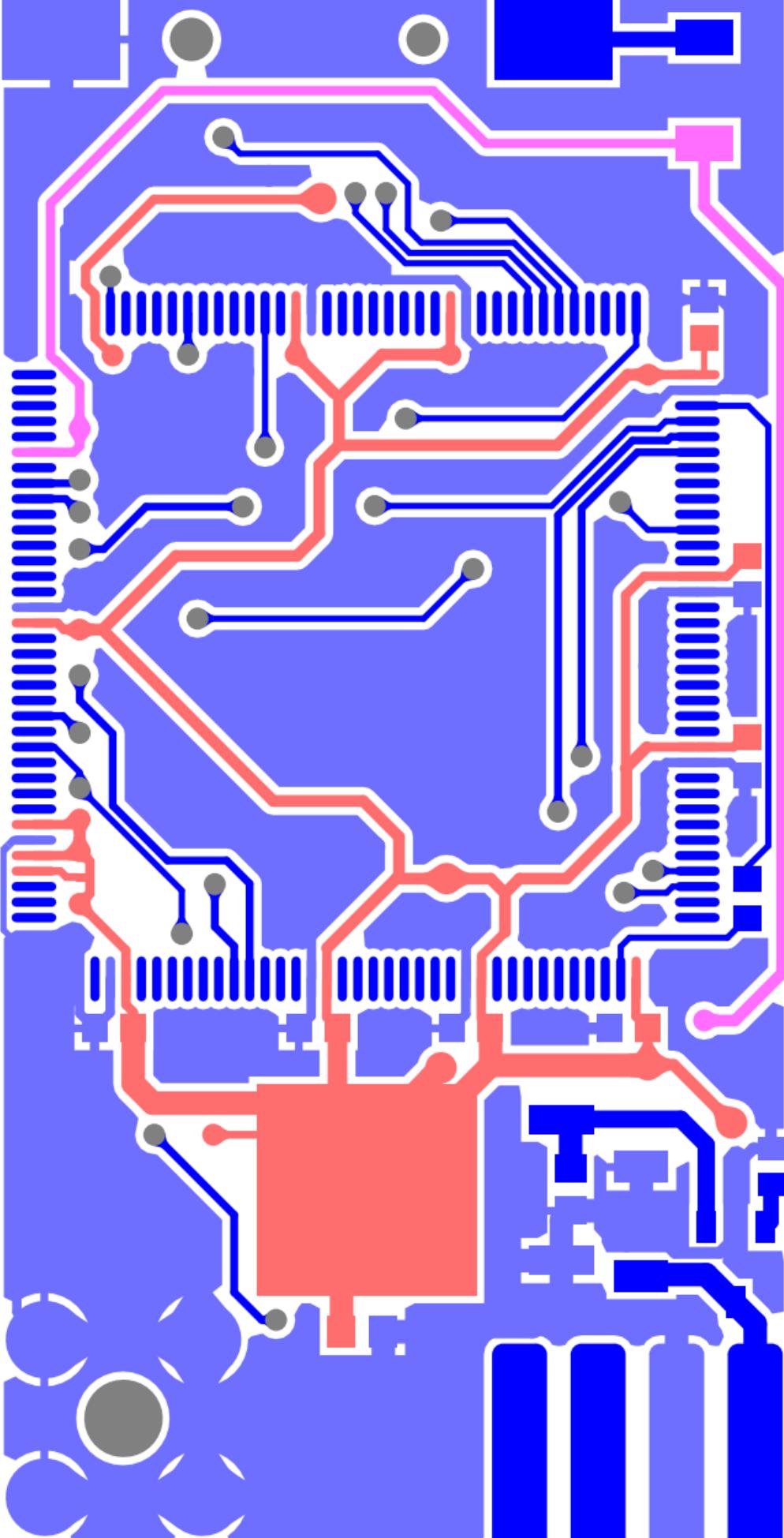
C



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Project name:	EL-04 Data Logger.PjPcb	Sheet: 4 of 8
Document name:	MicroSDCard.SchDoc	Car No. 5
Designer Name:	Author	Date/Time: 2/27/2018 3:15:25 PM Revision: Rev





A

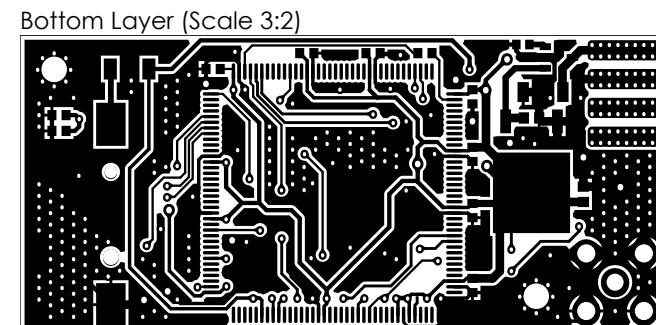
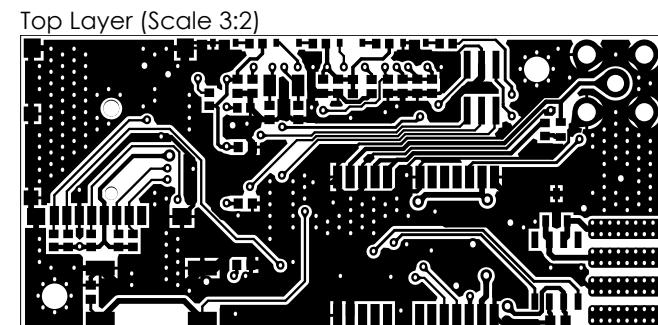
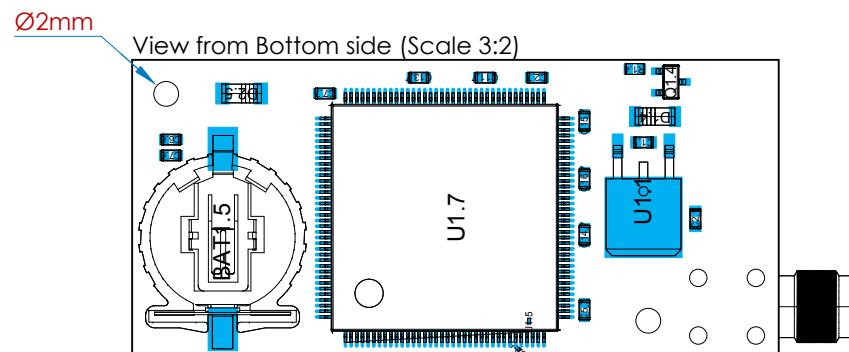
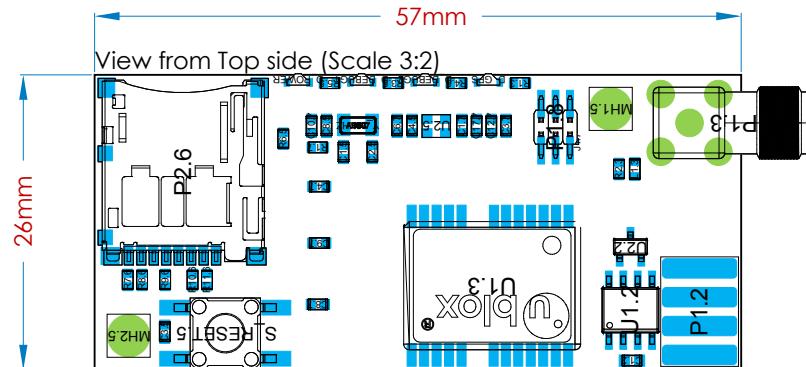
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C

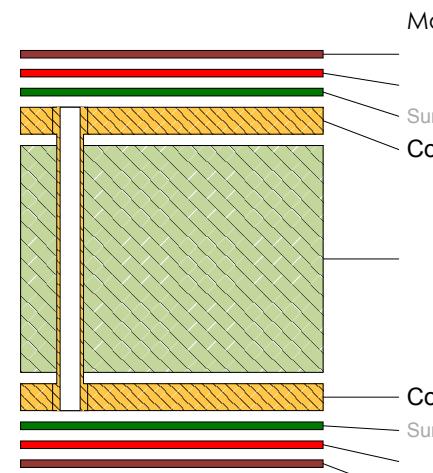
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E

F



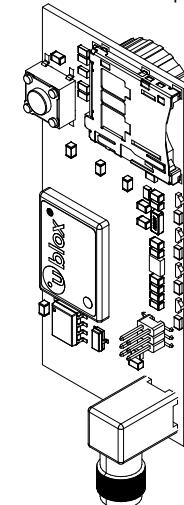
### Layer Stack Legend



Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Paste			Paste Mask	GTP
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.0mm	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.0mm		Signal	GTL
		1.0mm	FR-4		Dielectric
Copper	Bottom Layer	0.0mm		Signal	GBL
Surface Material	Bottom Solder	0.0mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
	Bottom Paste			Paste Mask	GBP

Total thickness: 1.1mm

### View from Top side (Scale 1.01603573049539)



A

B

C

D

E

F

