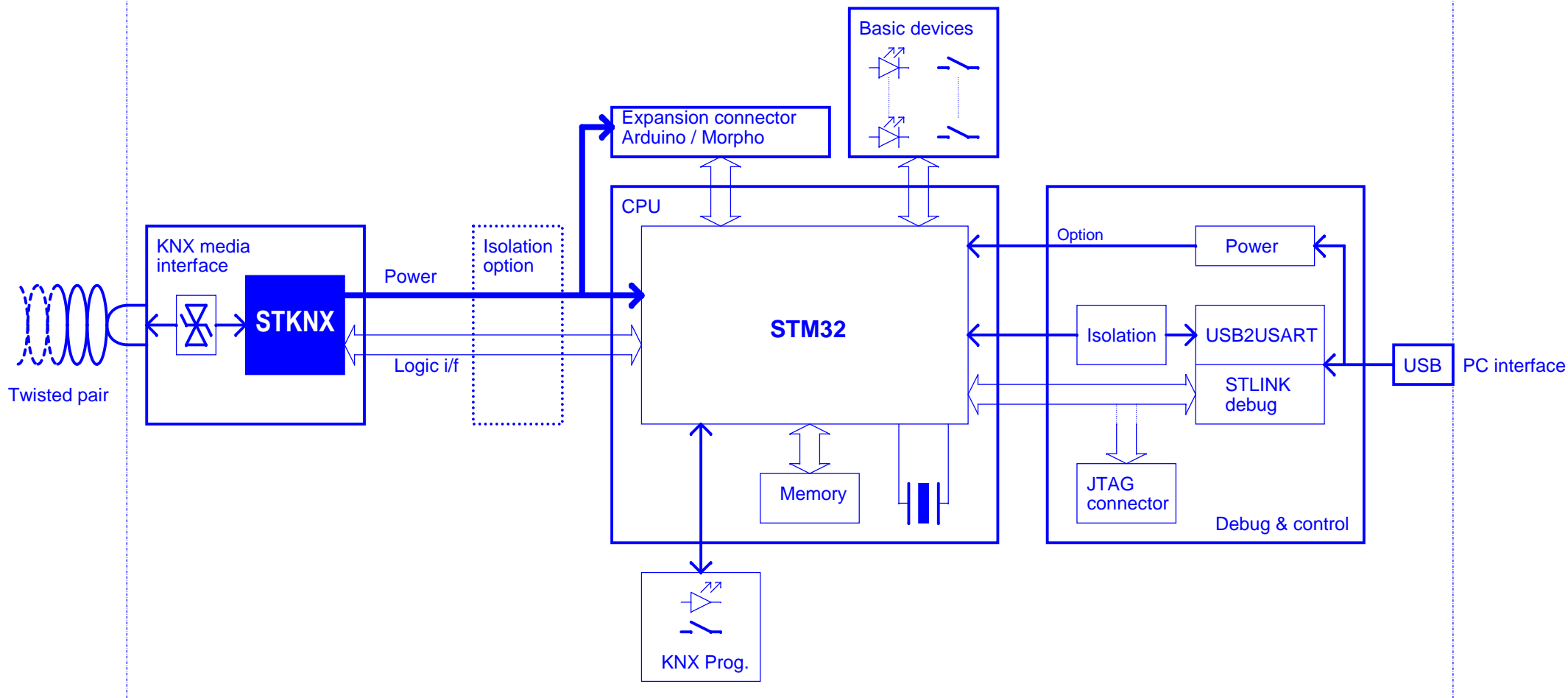


# STKNX Evaluation and Development kit



Silkscreen (green):

FOR EVALUATION ONLY  
NOT FCC APPROVED  
FOR RESALE

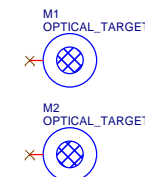
STM Logo  
KNX logo  
EVALKIT STKNX


PCBKA-REV1  
RoHS EU  
RoHS Chinese

Revision	Date	Comments
1	1	1
2017/11/16		Initial delivery

PCB revision =>  
BOM revision =>  
VARIANT revision =>

**Preliminary**  
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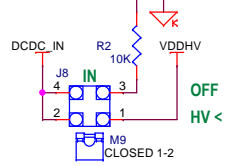


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Title			
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Size A3	Document Number	Block diagram	Rev 111
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## DCDC

DCDC regulator input selection

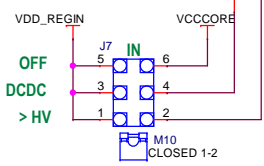
Default =>



## LINEAR

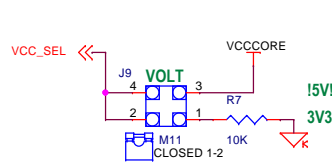
Linear regulator input selection

Default =>



Linear regulator voltage selection

Default =>

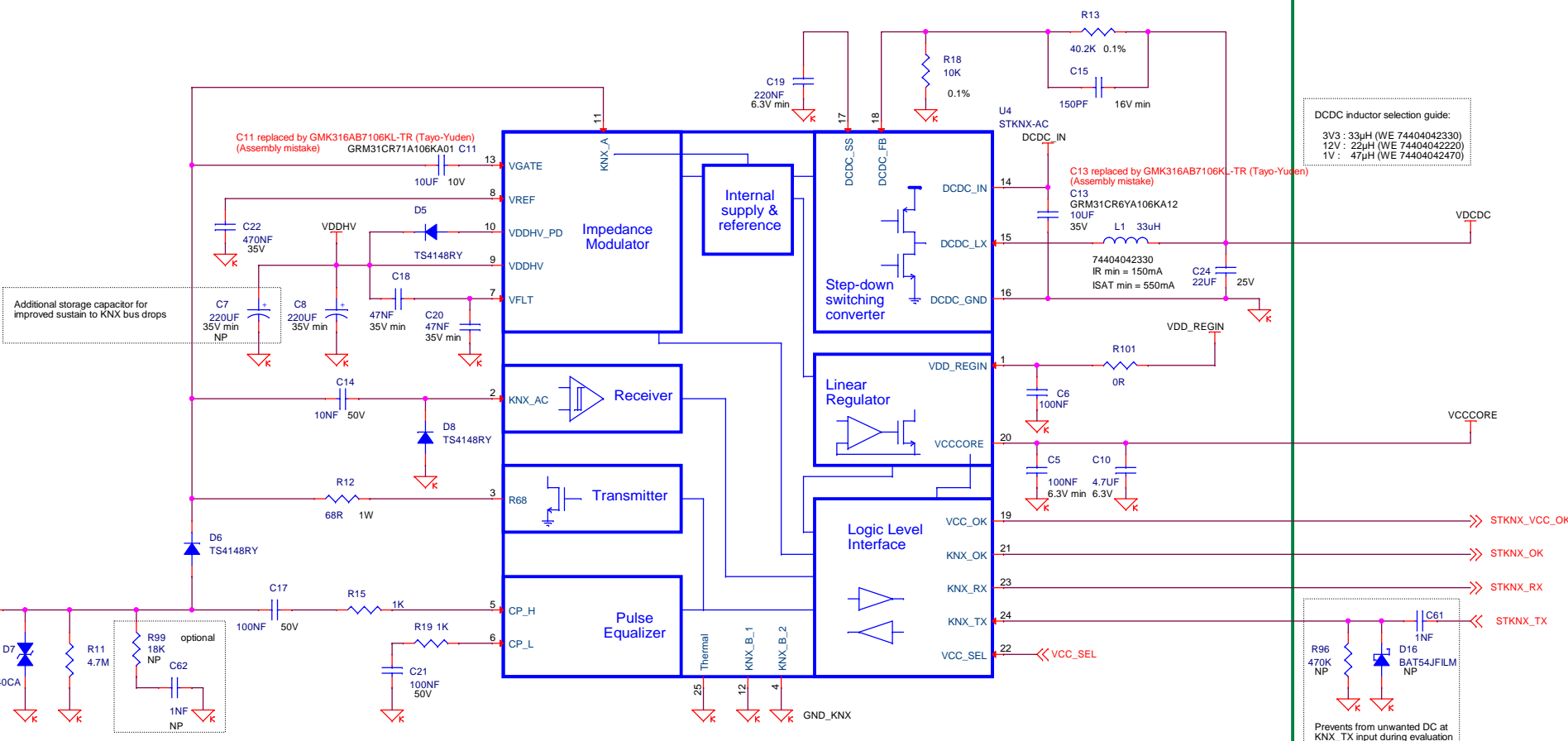


DCDC feedback setting:

3V3 : 13 kohm to GND; 30 kohm // 180pF to VDDCORE  
5V : 10 kohm to GND; 40.2 kohm // 150pF to VDDCORE  
7.5V (min value for connection to VDD\_REGIN) : 20 kohm to GND; 130 kohm // 47pF to VDDCORE

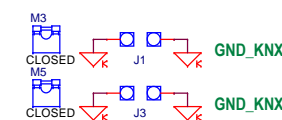
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## STKNX



Place TVS as close as possible to KNX connector for optimized surges protection

Board support and GND test point



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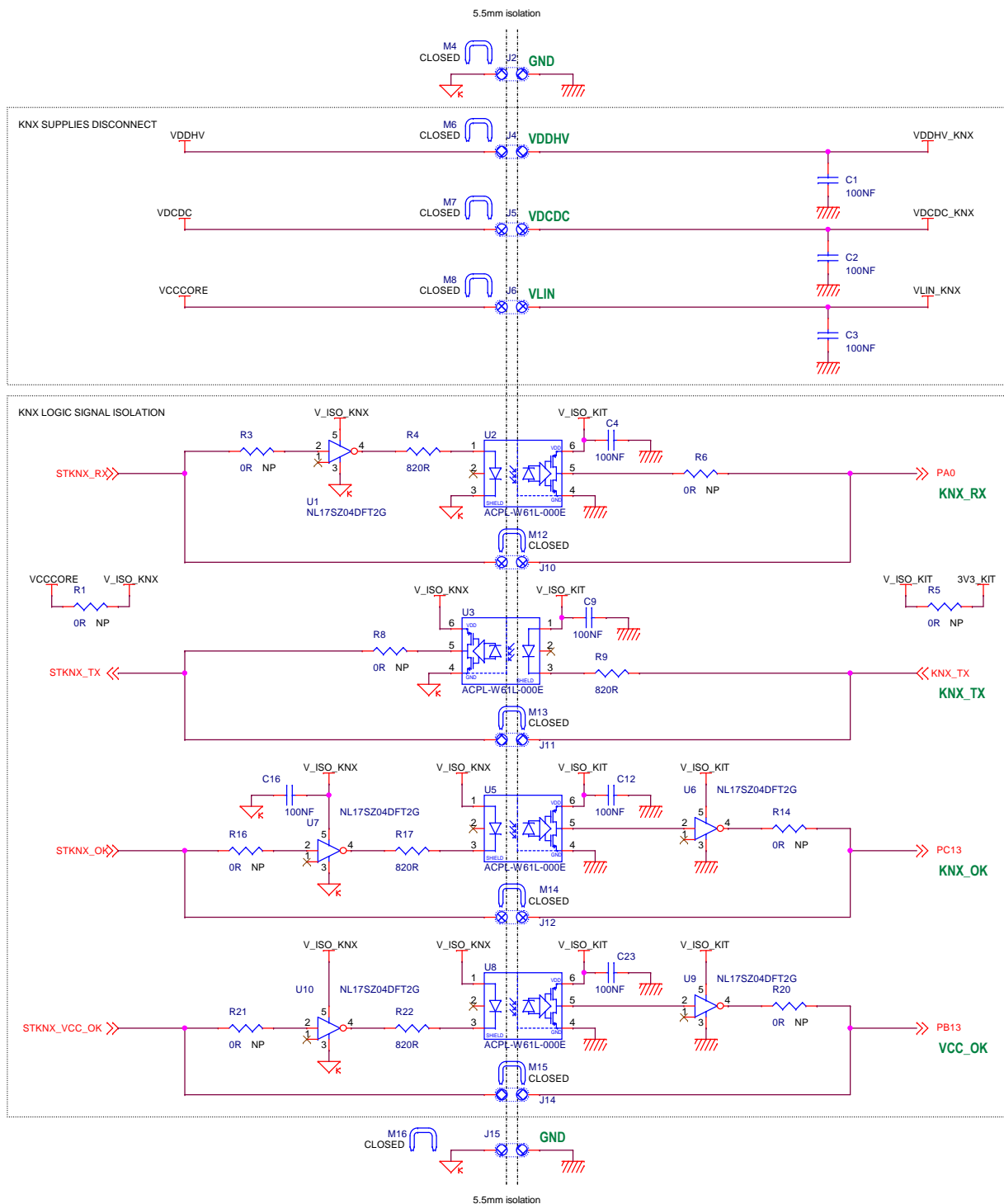


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**STKNX Evaluation and Development kit**

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ISOLATED mode:  
 \* remove every x9 jumpers shortcutting supplies, GND and opto-couplers  
 - place x2 resistors connecting resp. VCCCORE-V\_ISO\_KNX and V\_ISO\_KIT-3V3\_KIT  
 \* KNX\_RX, KNX\_OK, VCC\_OK:  
 - place serial resistors at inverters input and output  
 \* KNX\_TX:  
 - place the serial resistor at opto-coupler output

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# JUMPERS USE

 Arduino supply selection line =>  
 EVALKIT supply selection line =>

 VLIN / VDCDC connect  
 VDCDC connect

## Jumpers positions examples :

SW debug (USB power)



Default

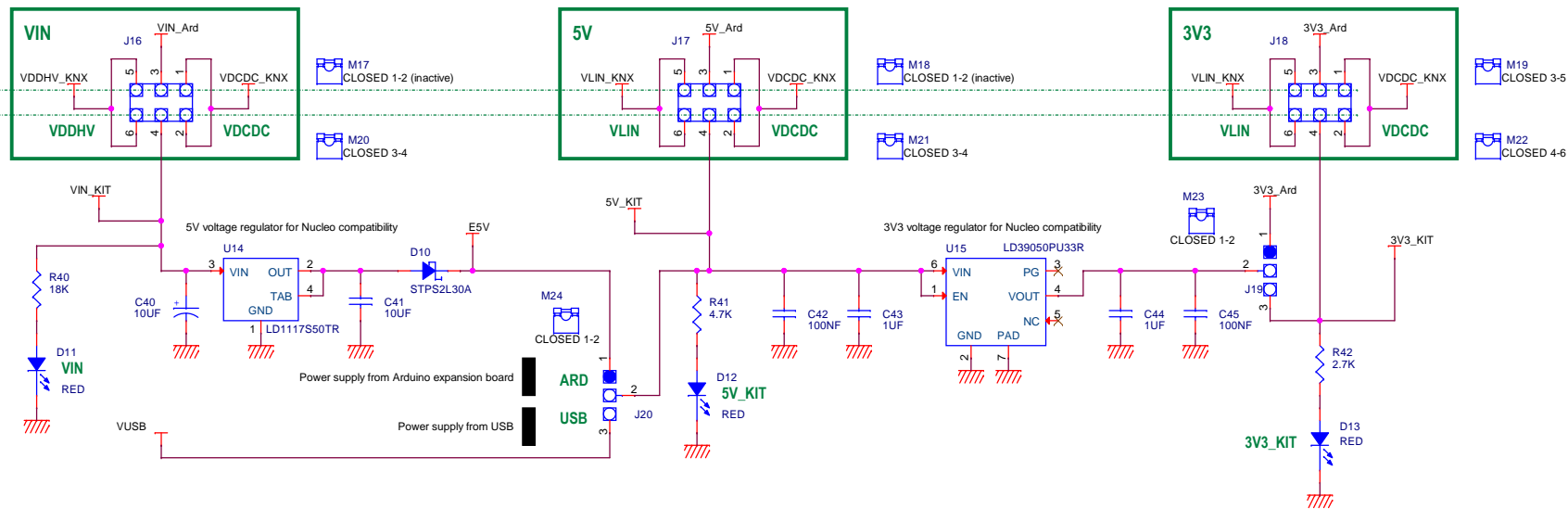


Dimming demo with LED16A1 board



## POWER MANAGEMENT

Arduino expansion board supply selection => **ARD**  
 EVALKITSTKNX supply selection => **KIT**



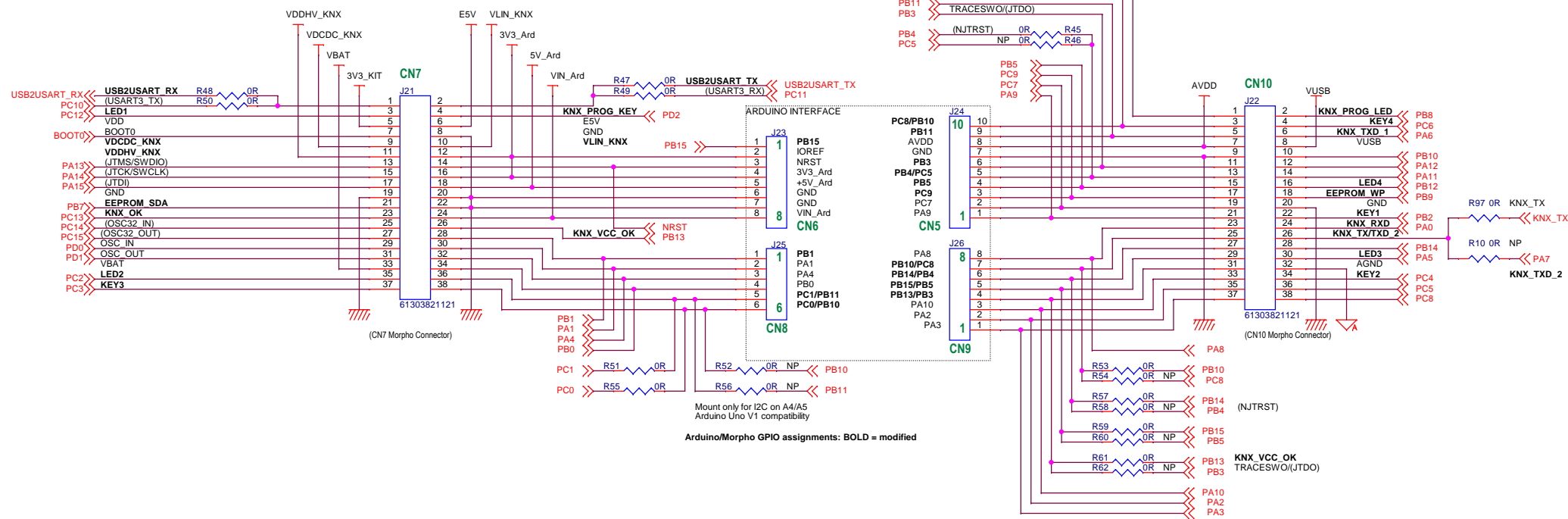
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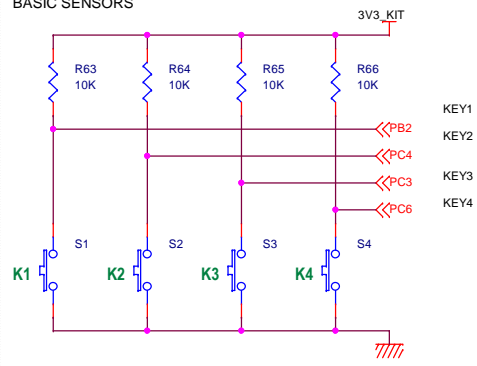
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Title			<b>STKNX Evaluation and Development kit</b>		
Size	A3	Document Number	<b>Power management</b>		Rev 111
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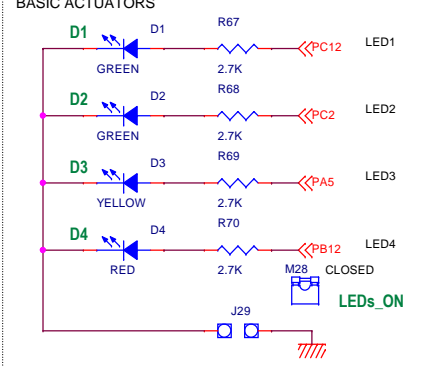
ARDUINO / MORPHO INTERFACE



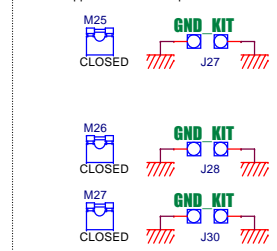
BASIC SENSORS



BASIC ACTUATORS



Board support and GND test point



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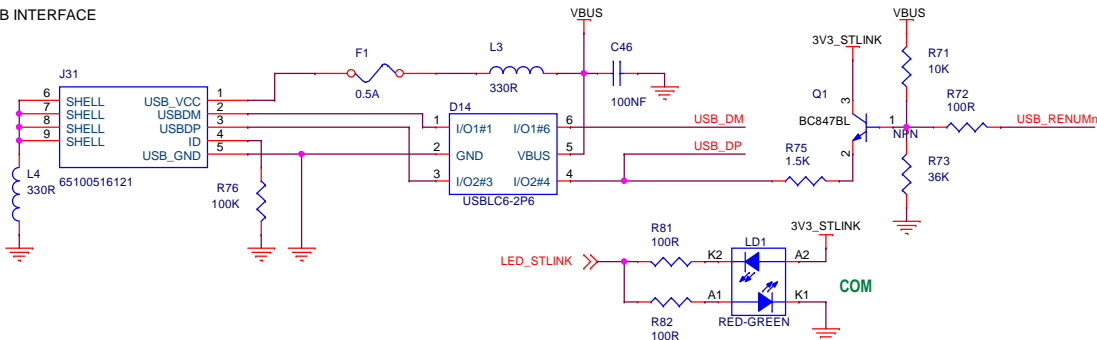


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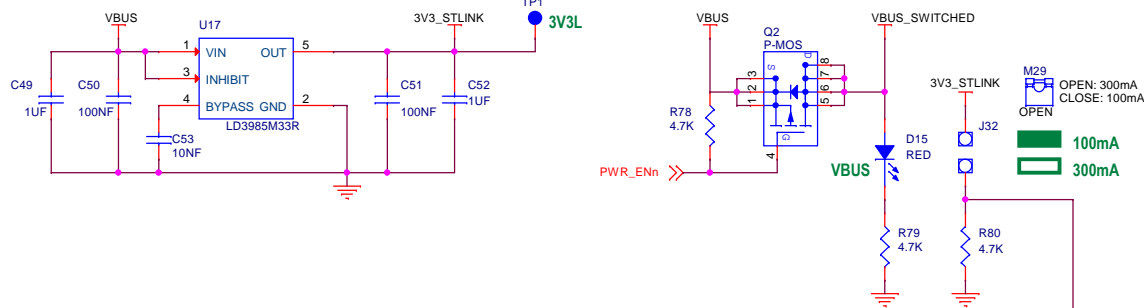
File  
**STKNX Evaluation and Development kit**

Size A3	Document Number <b>Expansion</b>	Rev 111
Date: Monday, July 23, 2018	Sheet 6 of 6	

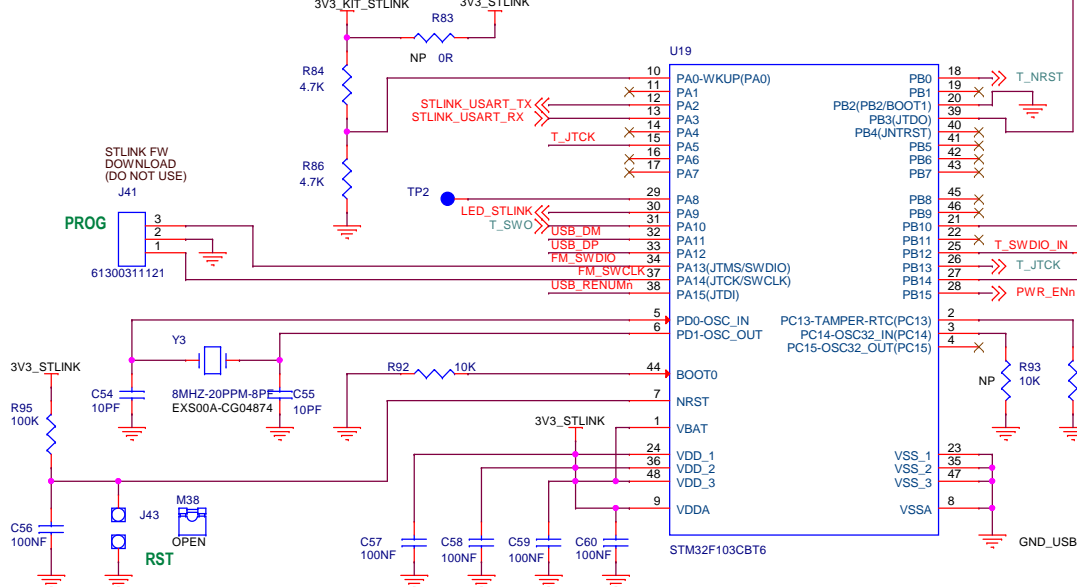
# USB INTERFACE



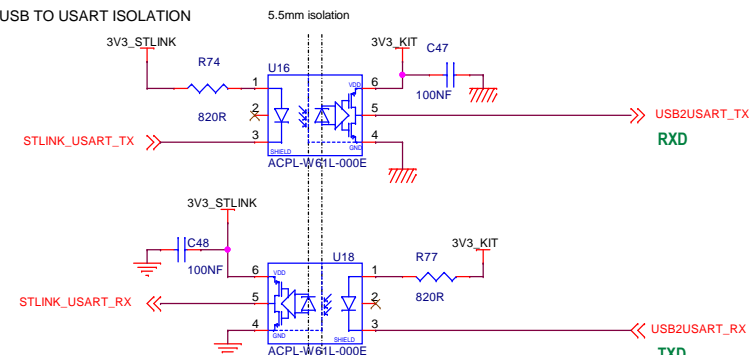
# USB POWER MANAGEMENT



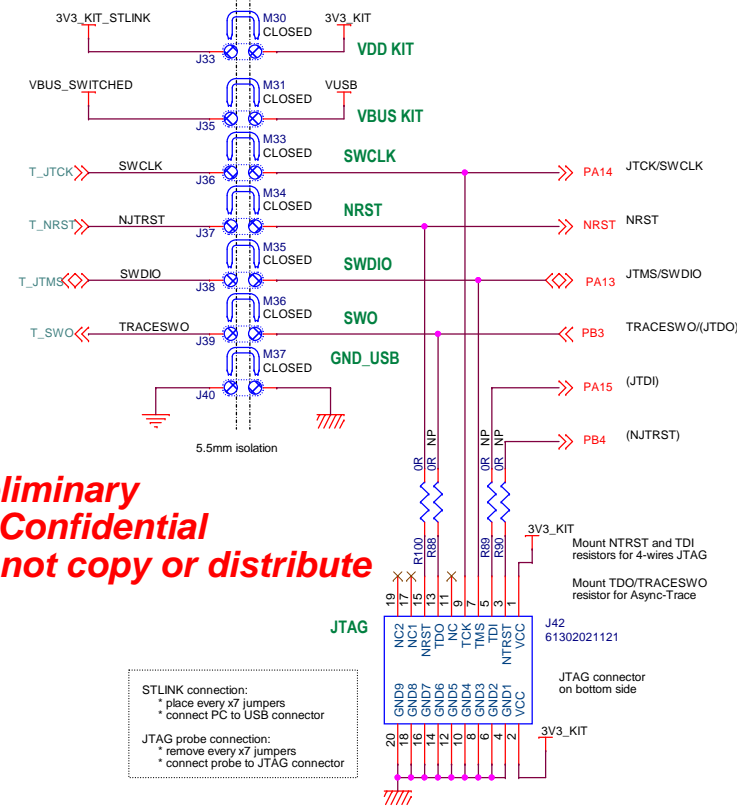
# STLINK & USB TO USART



# USB TO USART ISOLATION



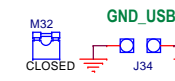
# DEBUG INTERFACE



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STLINK connection:  
\* place every x7 jumpers  
\* connect PC to USB connector  
JTAG probe connection:  
\* remove every x7 jumpers  
\* connect probe to JTAG connector

Board support and GND test point



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**STKMX Evaluation and Development kit**

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