

## Page 2

LPC3154 Powering and Unused parts

## Page 3

LPC3154 Digital I/O

## Page 4

JTAG Interface

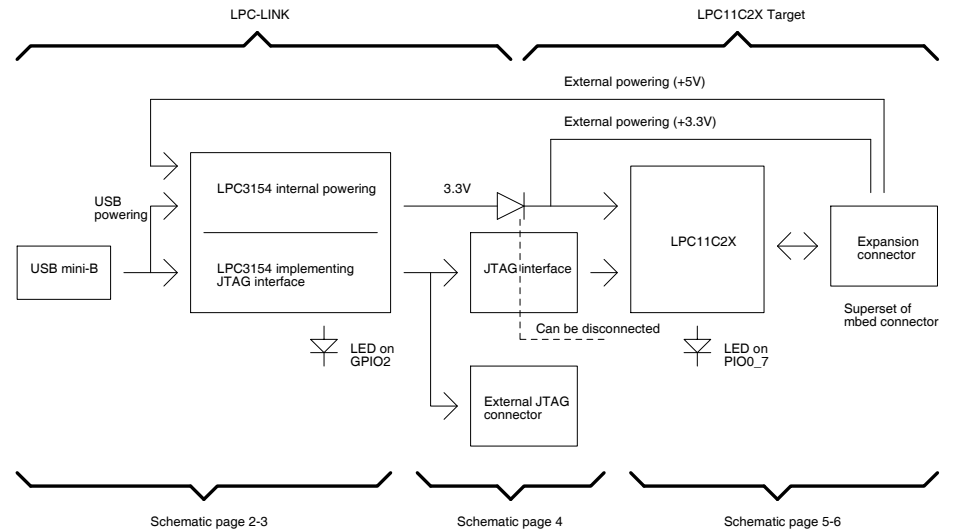
## Page 5

LPC17XX with Expansion connector

## Page 6

LPC17XX

## Design Overview



UL = UnLoaded = normally not mounted component.

Default jumper settings are indicated in the schematic.  
However, always check jumper positions on actual boards  
since there is no guarantee that all jumpers are in default place.



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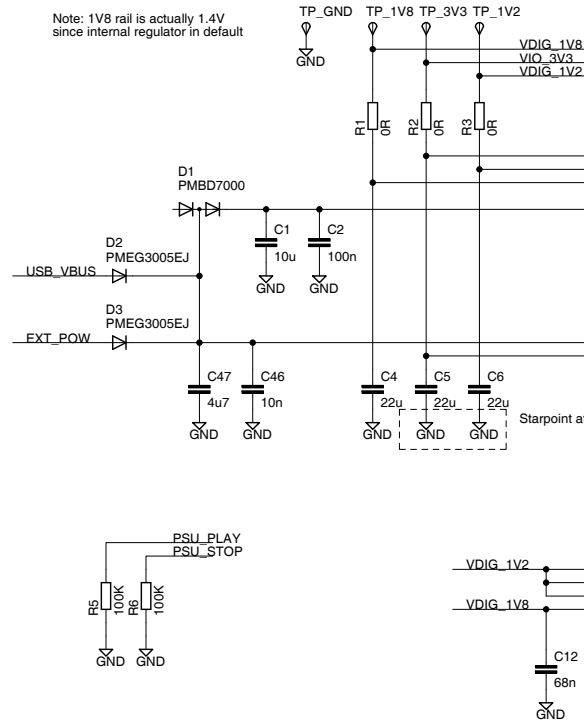
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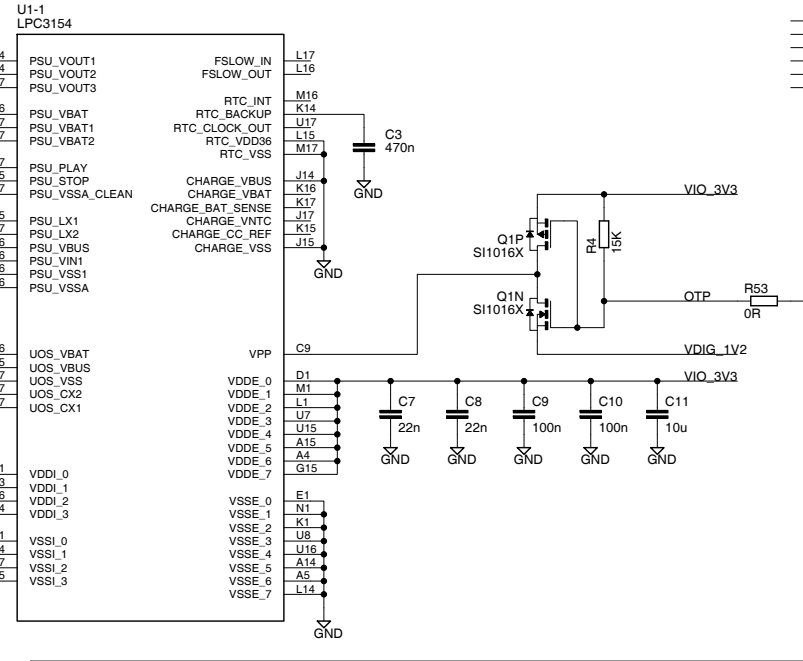
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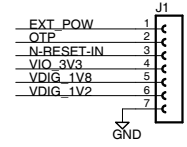
Note: 1V8 rail is actually 1.4V since internal regulator in default



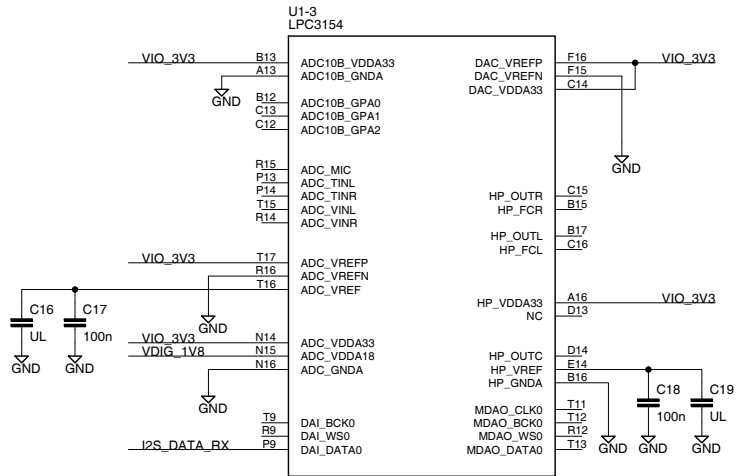
### Power supply parts of LPC3154



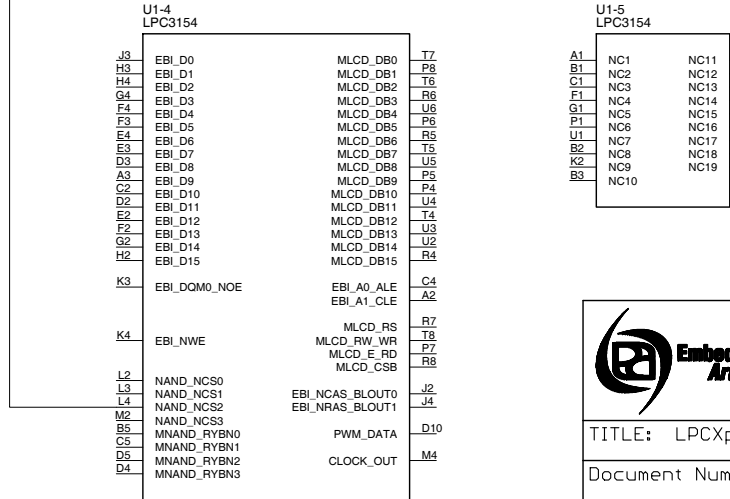
### Production test connector



### Analog parts of LPC3154



### Not used parts of LPC3154



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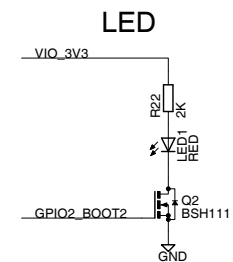
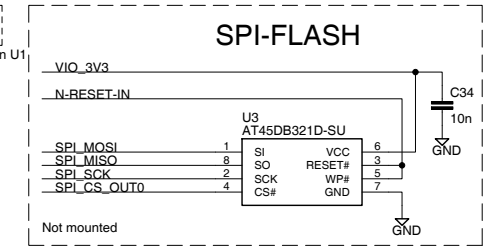
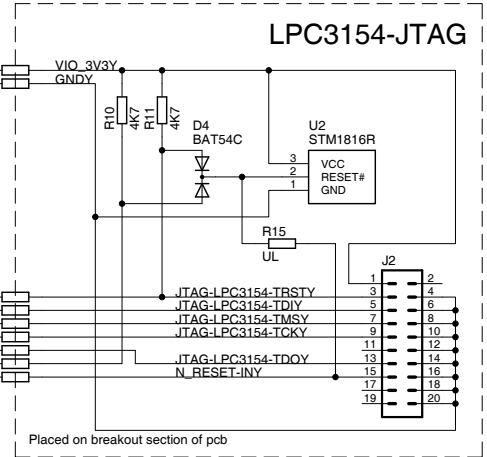
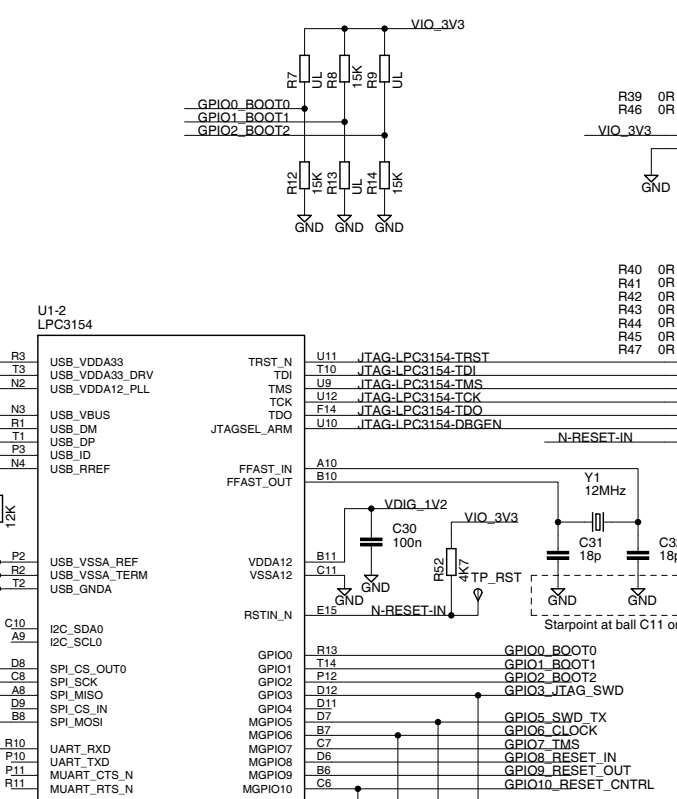
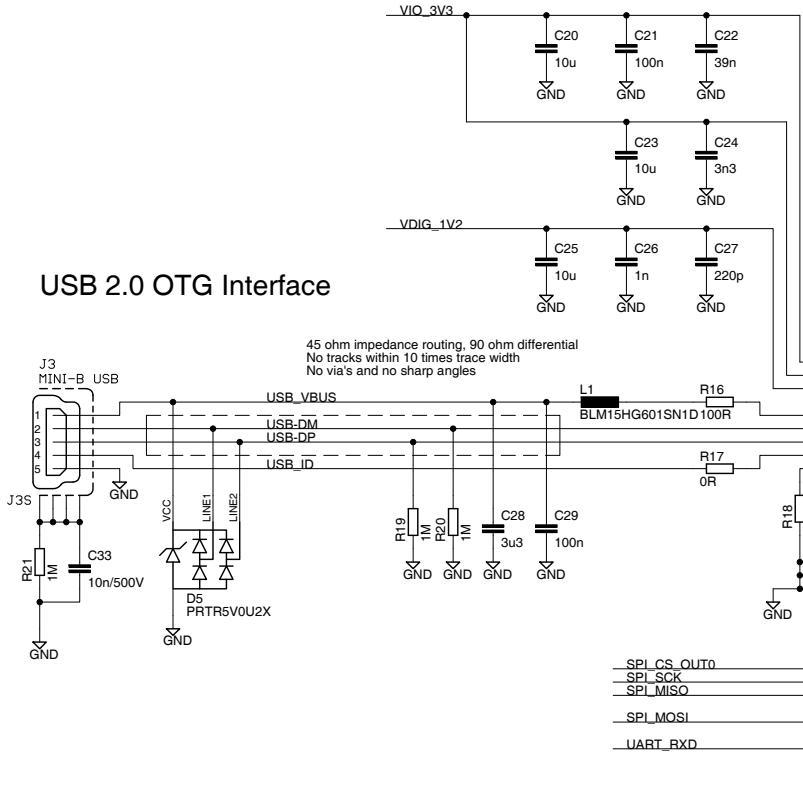
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## Boot mode - USB via DFU class

### USB 2.0 OTG Interface



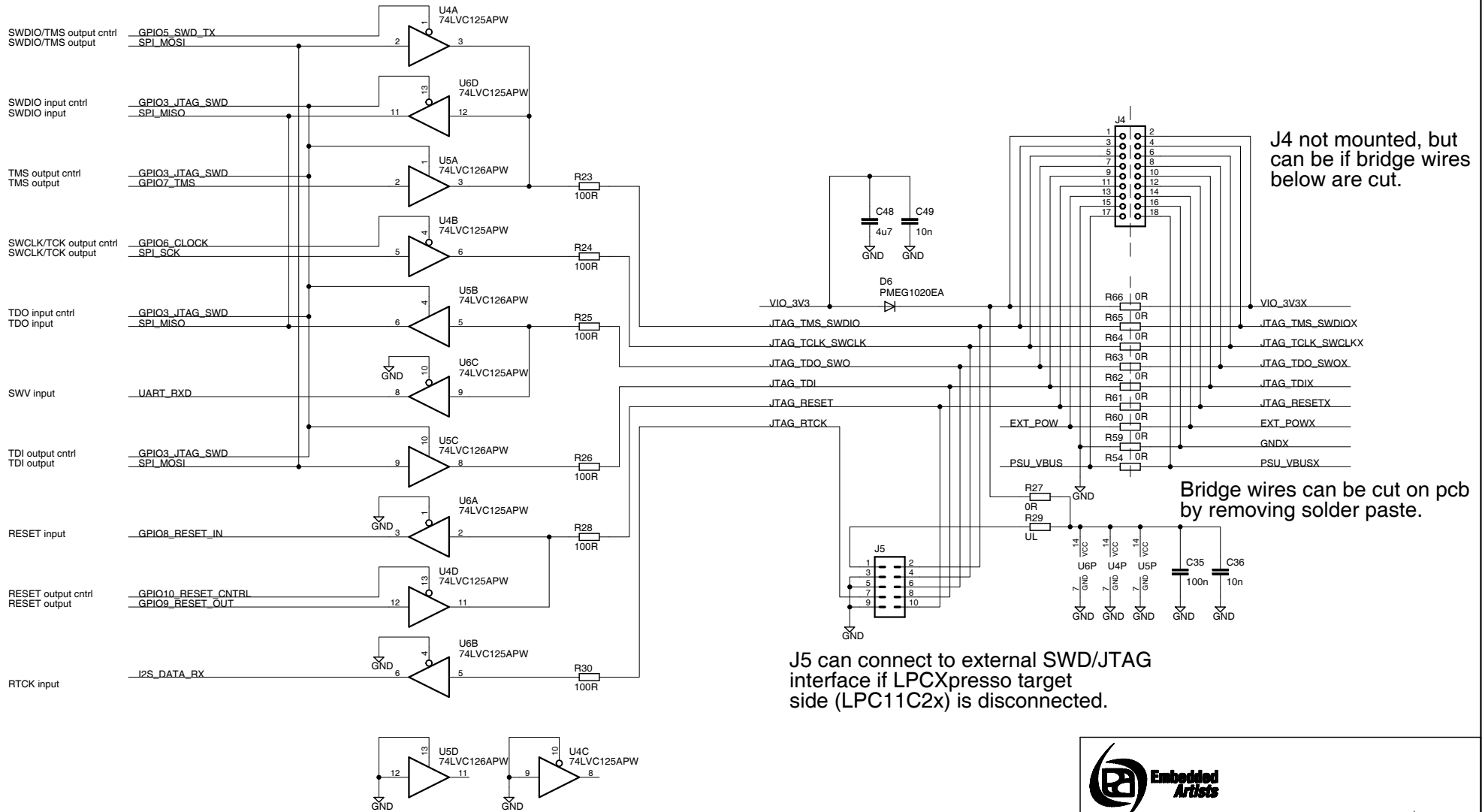


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# SWD/JTAG Interface



J4 not mounted, but can be if bridge wires below are cut.

Bridge wires can be cut on pcb by removing solder paste.

J5 can connect to external SWD/JTAG interface if LPCXpresso target side (LPC11C2x) is disconnected.



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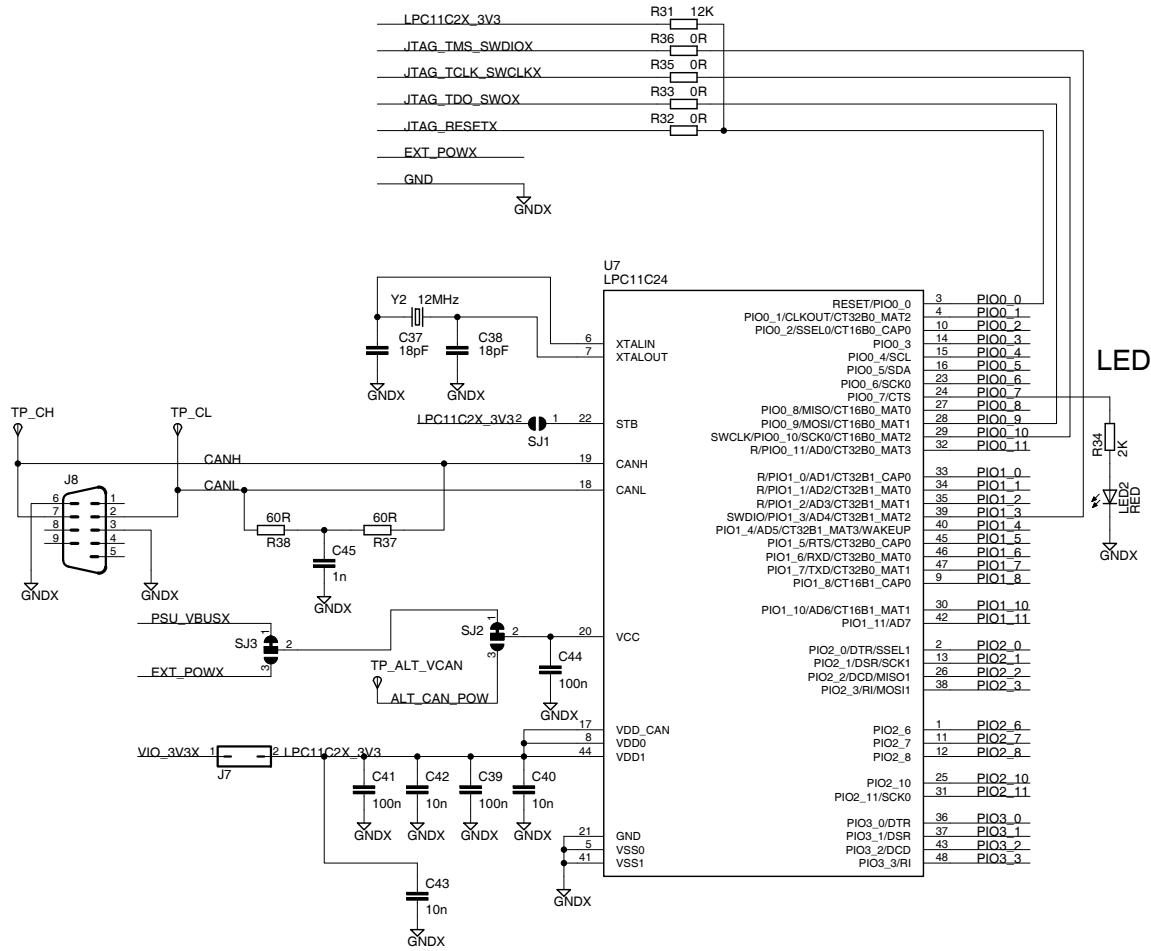
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# LPC11C24 Target Side

From LPC-LINK Side





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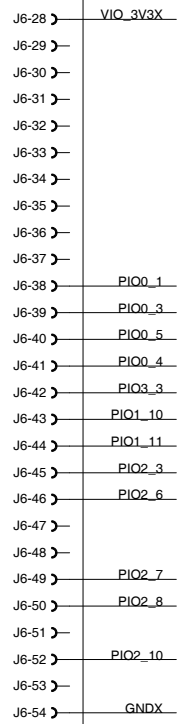
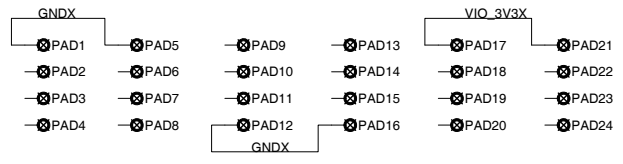
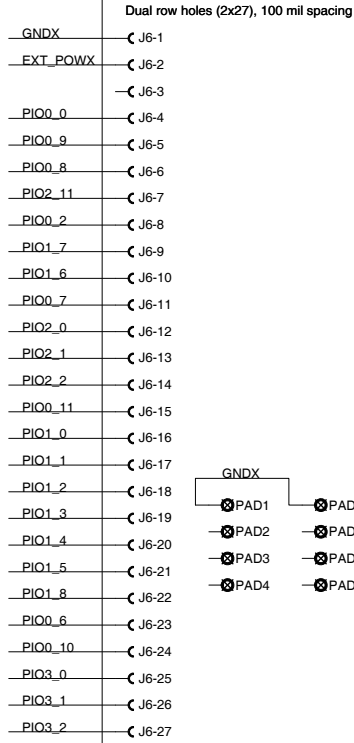
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↑  
LPC-LINK side

### Expansion Connector (superset of mbed pinning)

mbed	LPCXpresso
GND	GND
VIN (4.5-14V)	VIN (4.5-5.5V)
VB (battery supply)	not used
nR (reset)	PIO0_0 RESET
SPI1-MOSI	PIO0_9 MOSI0/SWO
SPI1-MISO	PIO0_8 MISO0
SPI1-SCK	PIO2_11 SCK0
GPIO	PIO0_2 SSEL0
UART1-TX / I2C1-SDA	PIO1_7 TXD
UART1-RX / I2C1-SCL	PIO1_6 RXD
SPI2-MOSI	PIO0_7
SPI2-MISO	PIO2_0
SPI2-SCL / UART2-TX	PIO2_1
UART2-RX	PIO2_2
AIN0	PIO0_11 AD0
AIN1	PIO1_0 AD1
AIN2	PIO1_1 AD2
AIN3 / AOUT	PIO1_2 AD3
AIN4	PIO1_3 AD4/SWDIO
AIN5	PIO1_4 AD5
	PIO1_5
	PIO1_8
	PIO0_6
	PIO0_10 SWCLK
	PIO3_0
	PIO3_1
	PIO3_2



LPCXpresso	mbed
VOUT (+3.3V out) if self powered, else +3.3V input	VOUT (3.3V out)
not used	VU (5.0V USB out)
not used	IF+
not used	IF-
not used	RD- (Ethernet)
not used	RD+ (Ethernet)
not used	TD- (Ethernet)
not used	TD+ (Ethernet)
not used	D- (USB)
not used	D+ (USB)
PIO0_1	CAN-RD
PIO0_3	CAN-TD
PIO0_5 I2C-SDA	UART3-TX / I2C2-SDA
PIO0_4 I2C-SCL	UART3-RX / I2C2-SCL
PIO3_3	PWMOUT0
PIO1_10	PWMOUT1
PIO1_11	PWMOUT2
PIO2_3	PWMOUT3
PIO2_6	PWMOUT4
not used	PWMOUT5
not used	
PIO2_7	
PIO2_8	
not used	
PIO2_10	
not used	
GND	



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