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LPC3154 Powering and Unused parts

Page 3

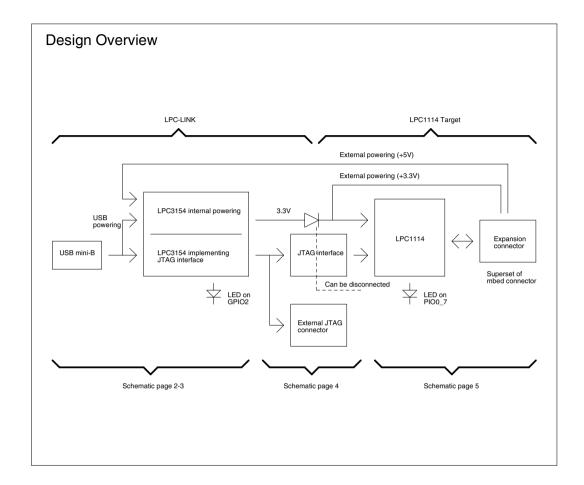
LPC3154 Digital I/O

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JTAG Interface

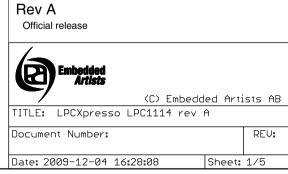
Page 5

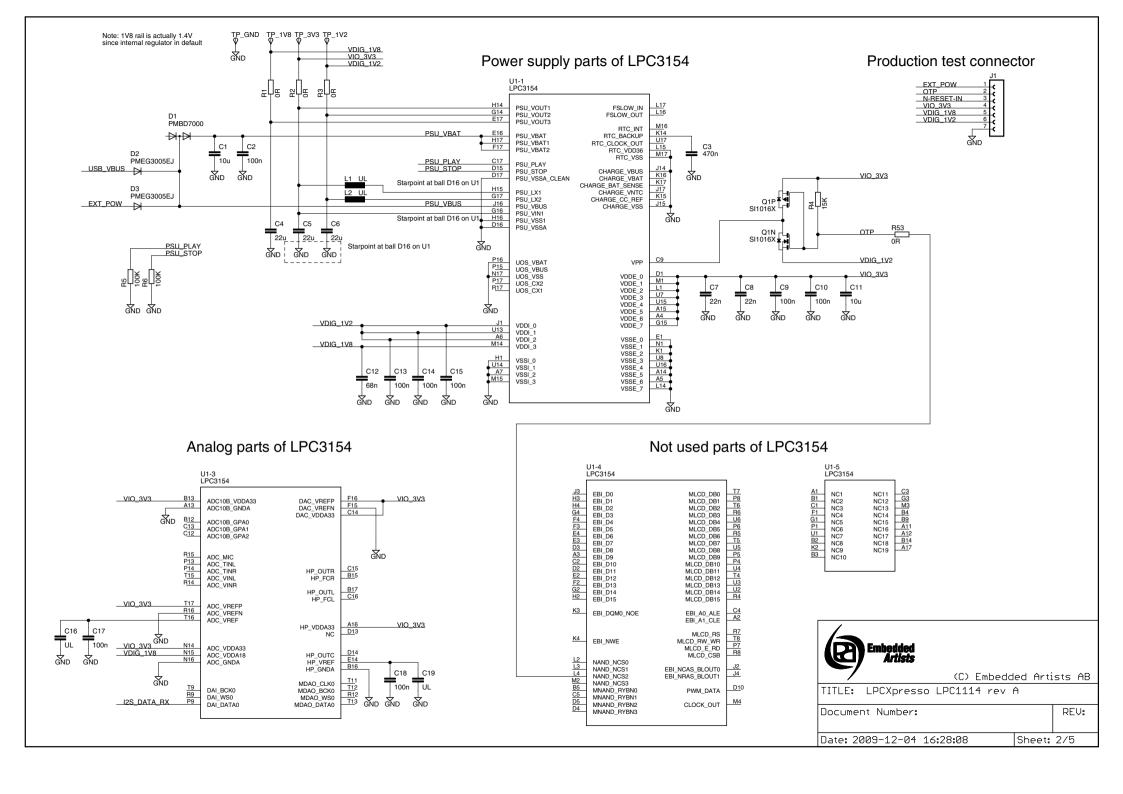
LPC1343 with Expansion connector

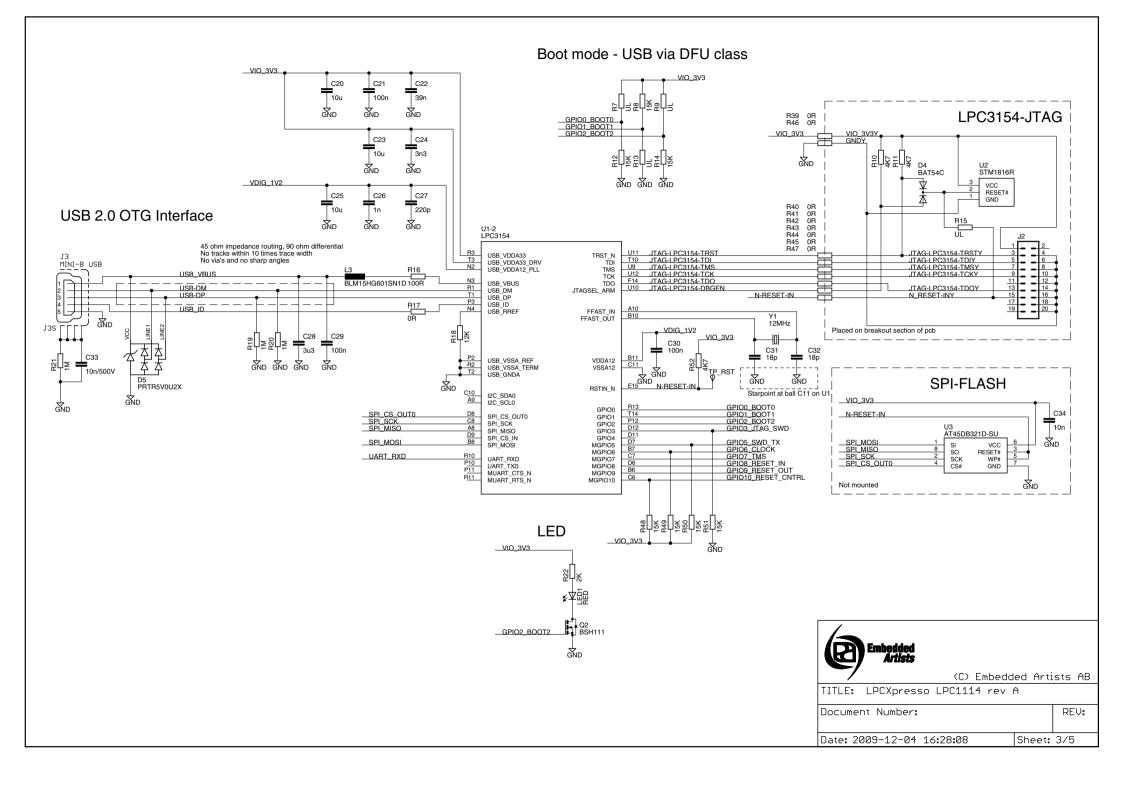


UL = UnLoaded = normally not mounted component.

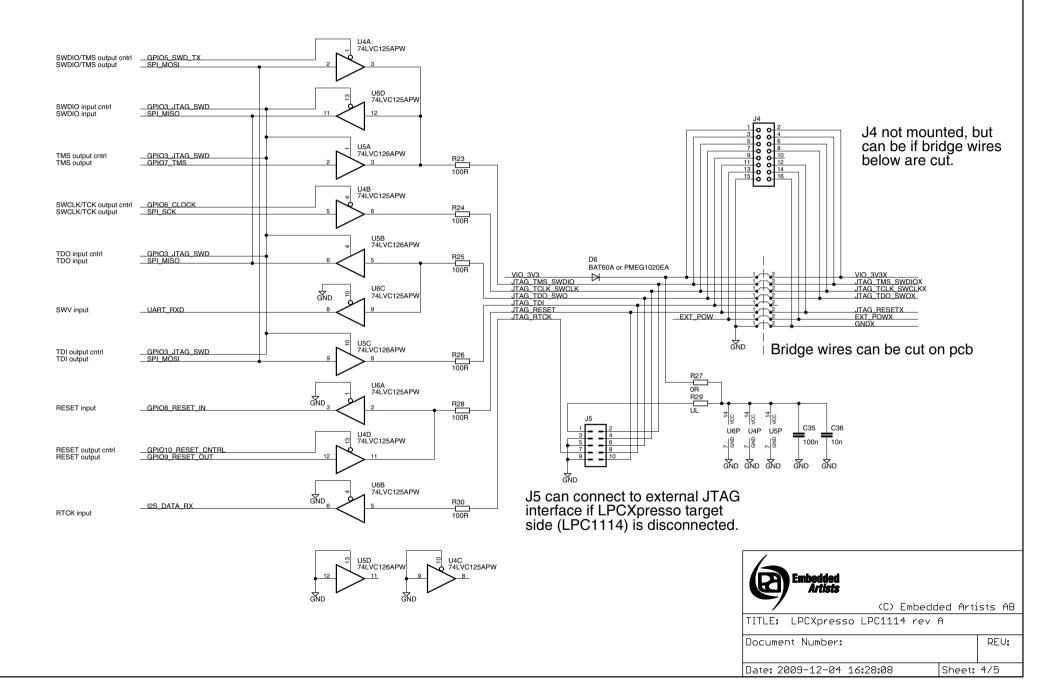
Default jumper settings are indicated in the schematic. However, always check jumper positions on actual boards since there is no guarantee that all jumpers are in default place.







JTAG Interface



From LPC-LINK Side R31_12K R36 0R JTAG TMS SWDIOX R35 0R JTAG TCLK SWCLKX R33 0R Note: SWO does not exist on LPC1114 JTAG TDO SWOX R32 0R JTAG RESETX EXT POWX GND U7 LPC1114 RESET/PIO0_0 PIO0_1/CLKOUT/CT32B0_MAT2 PIO0_1 PIO0_2 PIO0 2/SSEL0/CT16B0 CAP0 PIO0_3 PIO0_4 PIO0_5 PIO0 4/SCL **LED** PIO0_5/SDA PIO0_6 XTALIN XTALOUT PIO0_6/SCK0 PIO0_7/CTS Y2 12MHz PIO0 7 PIO0 8 PIO0 8/MISO0/CT16B0 MAT0 PIO0_9 PIO0_10 PIO0 9/MOSI0/CT16B0 MAT1 SWCLK/PIO0_10/SCK0/CT16B0_MAT2 C37 PIO0 11 TDI/PIO0_11/AD0/CT32B0_MAT3 18pF PIO1_0 PIO1_1 PIO1_2 PIO1_3 TMS/PIO1_0/AD1/CT32B1_CAP0 TDO/PIO1_1/AD2/CT32B1_MAT0 GNDX GNDX TRST/PIO1 2/AD3/CT32R1 MAT1 SWDIO/PIO1_3/AD4/CT32B1_MAT2 PIO1_4/AD5/CT32B1_MAT3/WAKEUP PIO1_5/BTS/CT32B0_CAP0 PIO1_5 PIO1_6 GNDX PIO1_6/RXD/CT32B0_MAT0 PIO1_7/TXD/CT32B0_MAT1 PIO1_8/CT16B1_CAP0 PIO1_8 PIO1_9 PIO1_9/CT16B1_MAT0 PIO1_10/AD6/CT16B1_MAT1 PIO1_11/AD7 PIO2_0 PIO2_1 PIO2_2 VIO 3V3X VDDIO PIO2_0/DTR/SSEL1 PIO2_1/DSR/SCK1 C40 C39 PIO2_2/DCD/MISO1 PIO2_3 PIO2_3/RI/MOSI1 100n 10n PIO2 4 PIO2_5 GNDX GNDX PIO2_6 R38 33R PIO2_6 PIO2_7 PIO2 8 VDDCORE PIO2_8 PIO2_9 PIO2_10

C41

100n

GNDX

C42

10n

GNDX

VSSIO 41

VSS

GNDX

LPC1114 Target Side

Expansion Connector (superset of mbed pinning)

mbed	LPCXpresso		Dual row holes (2x27), 100 mil spacing		LPCXpresso	mbed
GND	GND		GNDX J6-1	VIO_3V3X (J6-28	VOUT (+3.3V out) if self powered, else +3.3V input	VOUT (3.3V out)
VIN (4.5-14V)	VIN (4.5-5.5V)		_EXT_POWX_C J6-2	─(J6-29	not used	VU (5.0V USB out)
VB (battery supply)	not used		—∢ J6-3	─(J6-30	not used	IF+
nR (reset)	PIO0_0	RESET	PIO0_0 (J6-4	─(J6-31	not used	IF-
SPI1-MOSI	PIO0_9	MOSI/SWO	PIO0_9 (J6-5	─(J6-32	not used	RD- (Ethernet)
SPI1-MISO	PIO0_8	MISO	PIO0_8 C J6-6	—€ J6-33	not used	RD+ (Ethernet)
SPI1-SCK	PIO2_11	SCK	PIO2_11 (J6-7	─(J6-34	not used	TD- (Ethernet)
GPIO	PIO0_2	SSEL	PIO0_2 (J6-8	—∢ J6-35	not used	TD+ (Ethernet)
UART1-TX / I2C1-SDA	PIO1_7	TXD	PIO1_7 (J6-9	PIO2_4 (J6-36	USB_DM Note wrong text in silkscreen	D- (USB)
UART1-RX / I2C1-SCL	PIO1_6	RXD	PIO1_6 (J6-10	PIO2_5 (J6-37	USB_DP Note wrong text in silkscreen	D+ (USB)
SPI2-MOSI	PIO0_7		PIO0_7 (J6-11	PIO0_1 C J6-38	PIO0_1	CAN-RD
SPI2-MISO	PIO2_0		PIO2_0 (J6-12	PIO0_3 C J6-39	PIO0_3	CAN-TD
SPI2-SCL / UART2-TX	PIO2_1		PIO2_1 (J6-13	PIO0_5 C J6-40	PIO0_5 I2C-SDA	UART3-TX / I2C2-SDA
UART2-RX	PIO2_2		PIO2_2 (J6-14	PIO0_4 C J6-41	PIO0_4 I2C-SCL	UART3-RX / I2C2-SCL
AIN0	PIO0_11	AD0	PIO0_11 (J6-15	PIO1_9 (J6-42	PIO1_9	PWMOUT0
AIN1	PIO1_0	AD1	PIO1_0 (J6-16	PIO1_10 (J6-43	PIO1_10	PWMOUT1
AIN2	PIO1_1	AD2	PIO1_1 (J6-17	PIO1_11 (J6-44	PIO1_11	PWMOUT2
AIN3 / AOUT	PIO1_2	AD3	PIO1_2 (J6-18	PIO2_3 (J6-45	PIO2_3	PWMOUT3
AIN4	PIO1_3	AD4/SWDIO	PIO1_3 (J6-19	PIO3_4 (J6-46	PIO2_4 Note wrong text in silkscreen	PWMOUT4
AIN5	PIO1_4	AD5	PIO1_4 J6-20	PIO3_5 (J6-47	PIO2_5 Note wrong text in silkscreen	PWMOUT5
	PIO1_5		PIO1_5 (J6-21	<u>PIO2_6</u> (J6-48	PIO2_6	
	PIO1_8		PIO1_8 (J6-22	PIO2_7 (J6-49	PIO2_7	1
	PIO0_6		PIO0_6 C J6-23	PIO2_8 (J6-50	PIO2_8	
	PIO0_10	SWCLK	PIO0_10 (J6-24	PIO2_9 J6-51	PIO2_9	1
	PIO3_0		PIO3_0 (J6-25	PIO2_10 (J6-52	PIO2_10	1
	PIO3_1		PIO3_1 (J6-26	PIO3_3 (J6-53	PIO3_3	1
	PIO3_2		PIO3_2 (J6-27		GND	-

Note: Design and layout compatible with LPC1343 version.
Therefore PIO2_4/5 and PIO3_4/5 swap.
LPC1114 does not have USB, but LPC1343 has. Therefore R37/38.
LPC1114 does not have SWO, but PIO0_9 is connected (since LPC1343 has SWO there).

PIO2 9

PIO3 0

PIQ3_2

PIO3 3

PIO3 5

37 43

PIO2 10 PIO2_11/SCK0

PIO3_0/DTR

PIO3_1/DSR

PIO3 2/DCD

PIO3_3/RI

PIO3 5

