

Page 2

Target MCU: LPC1115

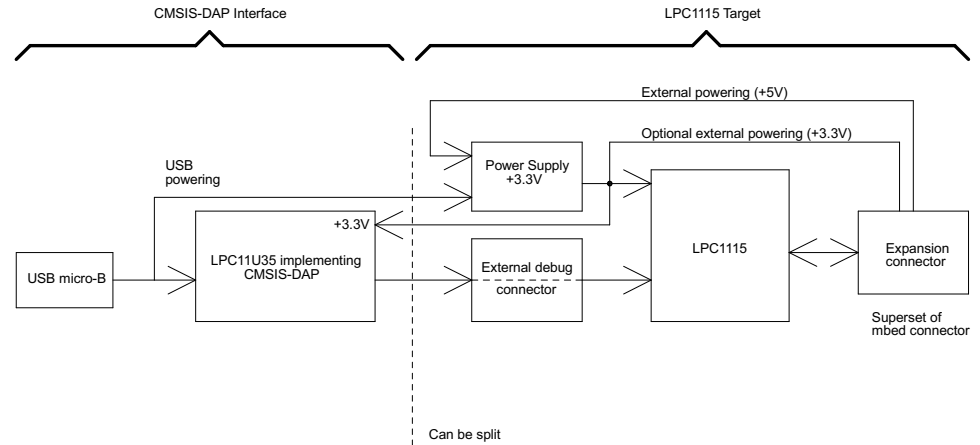
Page 3

LPCXpresso expansion connector

Page 4

CMSIS-DAP interface


Design Overview



NXP board number: OM13087

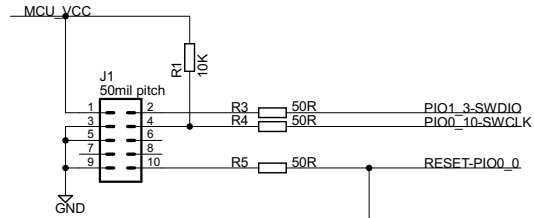
UL = UnLoaded = normally not mounted component.

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.

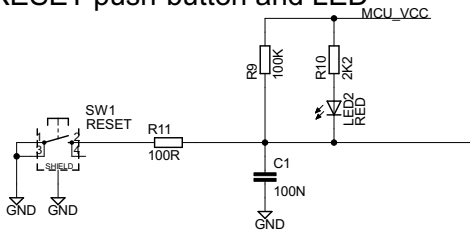
	
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TITLE: LPCXpresso1115 with CMSIS-DAP rev A	
Document Number:	
Date: 2016-07-16 14:59:35	Sheet: 1/4

Target MCU: LPC1115

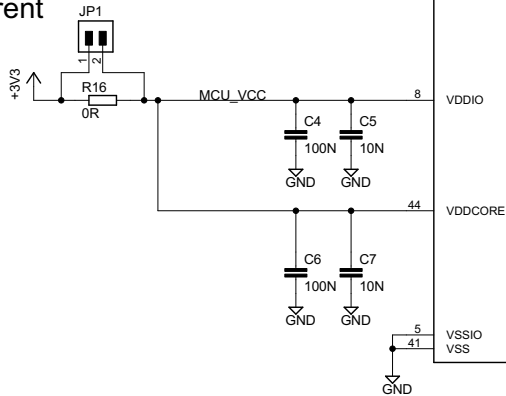
Debug connector (SWD)



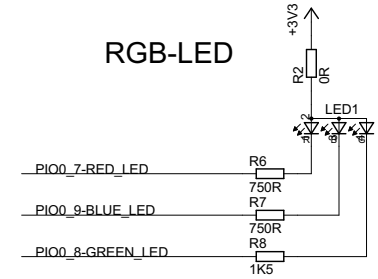
RESET push-button and LED



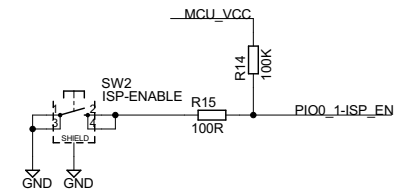
Resistor can be replaced to measure current



RGB-LED



Bootload enable



U1
LPC1115FBD48/303

3	RESET-PIO0_0	33	PIO1_0
4	PIO0_1-ISP_EN	34	PIO1_1
10	PIO0_2	35	PIO1_2
14	PIO0_3	39	PIO1_3-SWDIO
15	PIO0_4	40	PIO1_4
16	PIO0_5	45	PIO1_5
22	PIO0_6	46	PIO1_6
23	PIO0_7-RED_LED	47	PIO1_7
27	PIO0_8-GREEN_LED	9	PIO1_8
28	PIO0_9-BLUE_LED	17	PIO1_9
29	PIO0_10-SWCLK	30	PIO1_10
32	PIO0_11	42	PIO1_11
		2	PIO2_0
		13	PIO2_1
		26	PIO2_2
		38	PIO2_3
		19	PIO2_4
		20	PIO2_5
		1	PIO2_6
		11	PIO2_7
		12	PIO2_8
		24	PIO2_9
		25	PIO2_10
		31	PIO2_11
		36	PIO3_0
		37	PIO3_1
		43	PIO3_2
		48	PIO3_3
		18	PIO3_4
		21	PIO3_5



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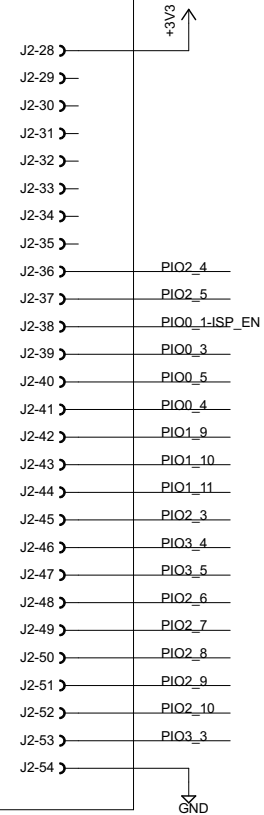
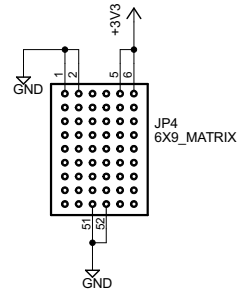
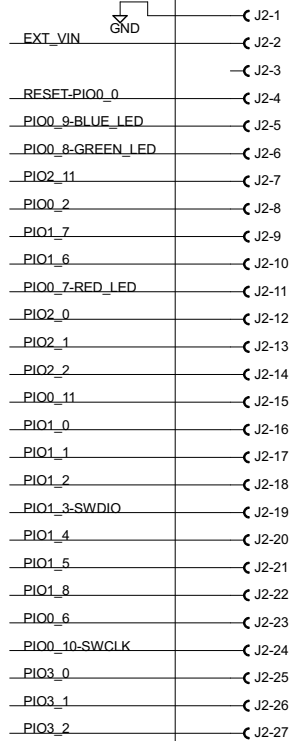
Sheet: 2/4

↑
CMSIS-DAP side

Expansion Connector (superset of mbed pinning)

Dual row holes (2x27), 100 mil spacing

mbed	LPCXpresso
GND	GND
VIN (4.5-14V)	VIN (4.5-5.5V)
VB (battery supply)	not used
nR (reset)	PIO0_0 RESET_N
SPI1-MOSI	PIO0_9 MOSI
SPI1-MISO	PIO0_8 MISO
SPI1-SCK	PIO2_11 SCK
GPIO	PIO0_2 SSEL
UART1-TX / I2C1-SDA	PIO1_7 TXD
UART1-RX / I2C1-SCL	PIO1_6 RXD
SPI2-MOSI	PIO0_7
SPI2-MISO	PIO2_0
SPI2-SCK / 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)
PIO2_4	D- (USB)
PIO2_5	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
PIO1_9	PWMOUT0
PIO1_10	PWMOUT1
PIO1_11	PWMOUT2
PIO2_3	PWMOUT3
PIO2_4	PWMOUT4
PIO2_5	PWMOUT5
PIO2_6	
PIO2_7	
PIO2_8	
PIO2_9	
PIO2_10	
PIO3_3	
GND	



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Sheet: 3/4