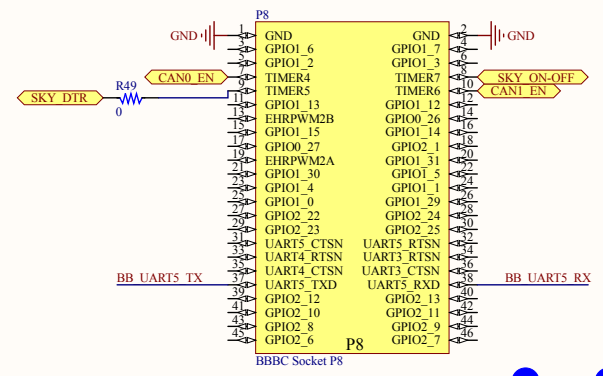


J8 is used as a control header to select the Capes EEPROM address, control configurations of the onboard MUXes (U7/U10), and to control the CAN1 buffer(U11).



OE#	Jumper Output		UART CONNECTION *Default connection is UART4
	MUX S1	MUX S0	
L	L	L	UART4
L	L	H	UART2
L	H	L	UART1
L	H	H	UART5

H=High, L=Low

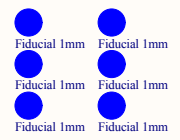
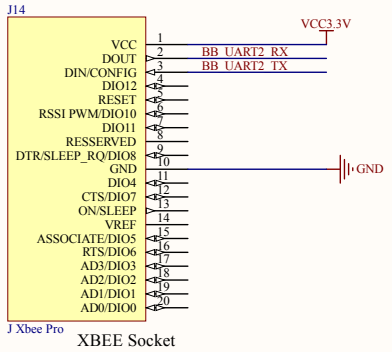
CAN MUX & Buffer Jumpers

The CAN MUX & buffer is located on page 5 and are controlled by J12 on page 1.

CANMUX is used as a buffer for I2C2, CAN0, and UART5 CTS/RTS to avoid pin contention issues. When CANMUX_OE# is HIGH the connections (CAN0, I2C2) are not connected and are in a high impedance state.

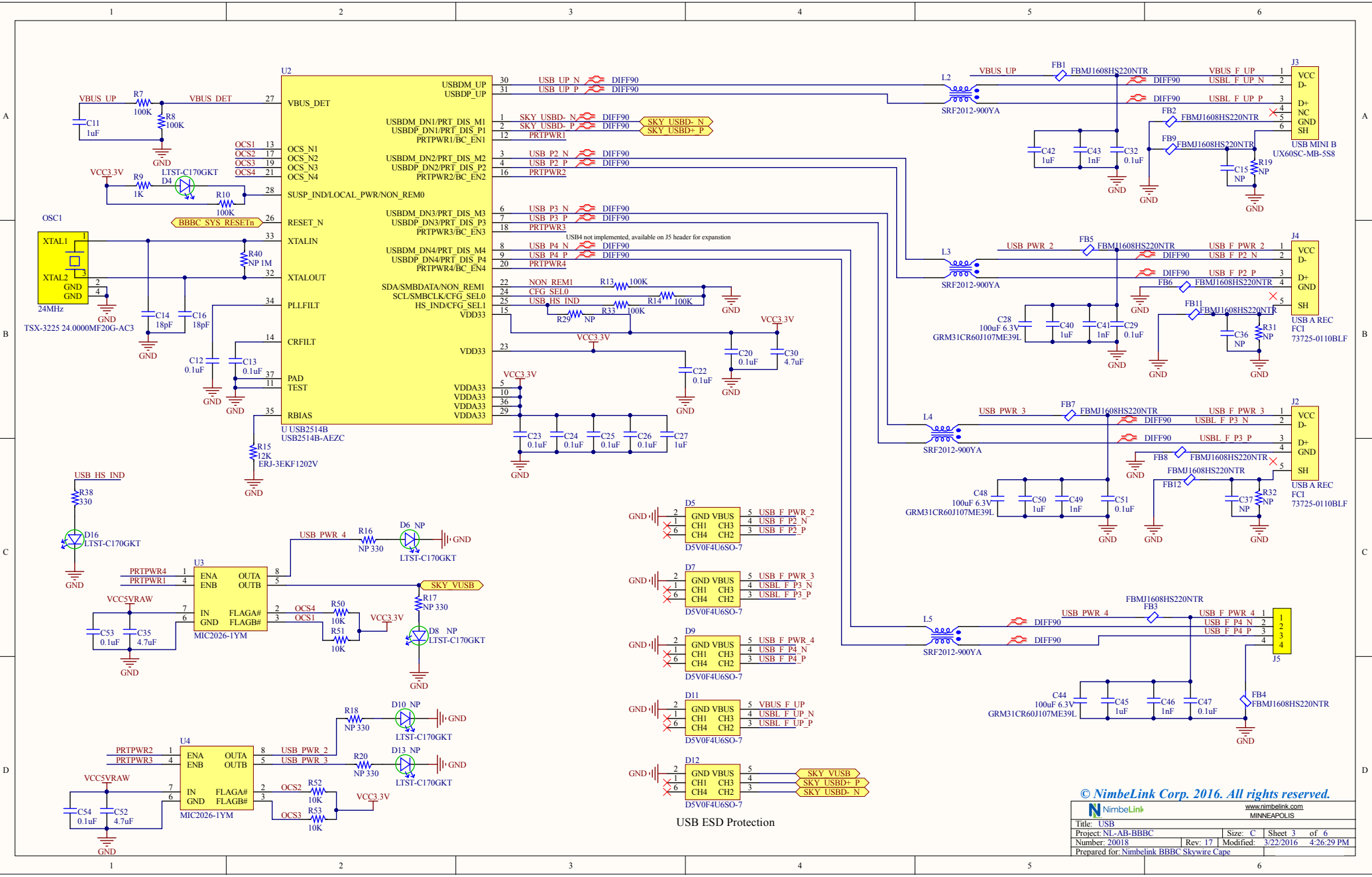
The I2C2 connection connects the capes EEPROM to the Beagle Bone Black and is enabled by default.

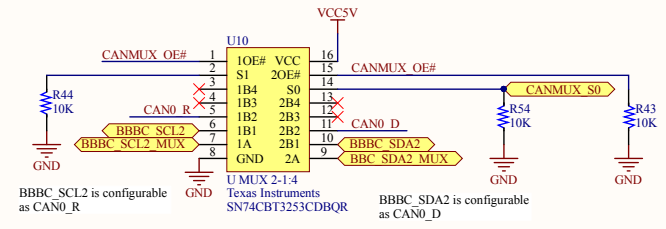
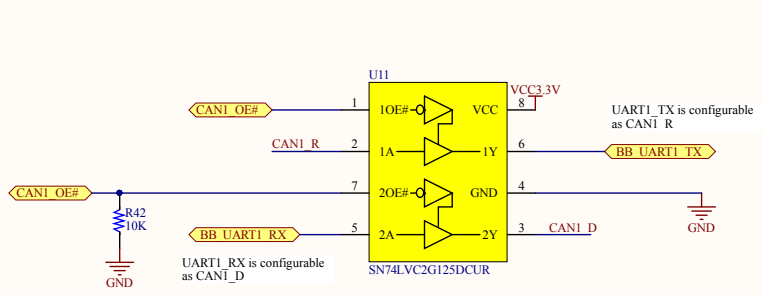
CAN1_OE# is used as a buffer for the CAN1 transceiver to prevent pin conflicts with UART1. It is enabled by default. Short J12-4 with a jumper to disable.



© NimbleLink Corp. 2016. All rights reserved.

NimbleLink		www.nimblelink.com	
MINNEAPOLIS			
Title: Xbee, BBBC Header, EEPROM, UART MUX			
Project: NL-AB-BBBC	Size: C	Sheet 2	of 6
Number: 20018	Rev: 17	Modified: 3/22/2016	4:26:28 PM
Prepared for: NimbleLink BBBC Skywire Cape			



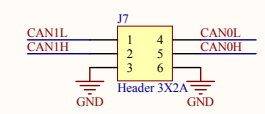


CAN MUX & Buffer Jumpers
 CANMUX is used as a buffer for I2C2, CAN0, and UART5 CTS/RTS to avoid pin contention issues. When CANMUX_OE# is HIGH the connections (CAN0, I2C2) are not connected and are in a high impedance state.
 The I2C2 connection connects the capes EPROM to the Beagle Bone Black and is enabled by default.
 CAN1_OE# is used as a buffer for the CAN1 transceiver to prevent pin conflicts with UART1.

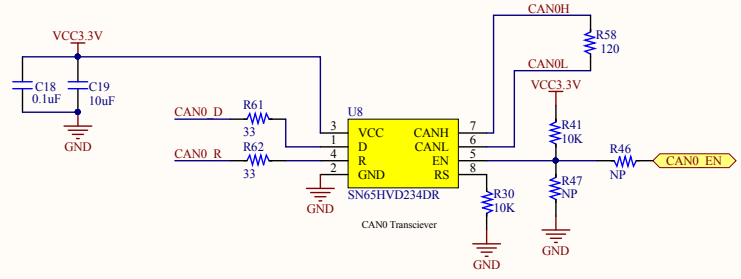
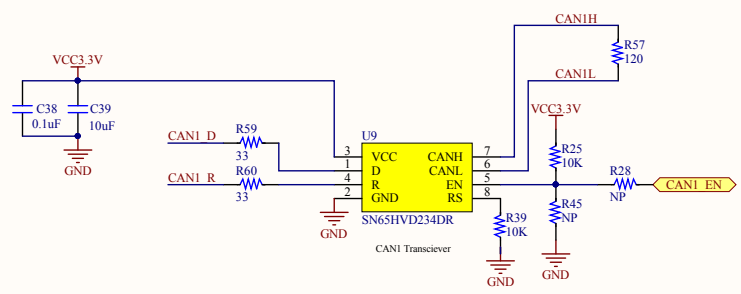
CANMUX Channel Connection Truth Table

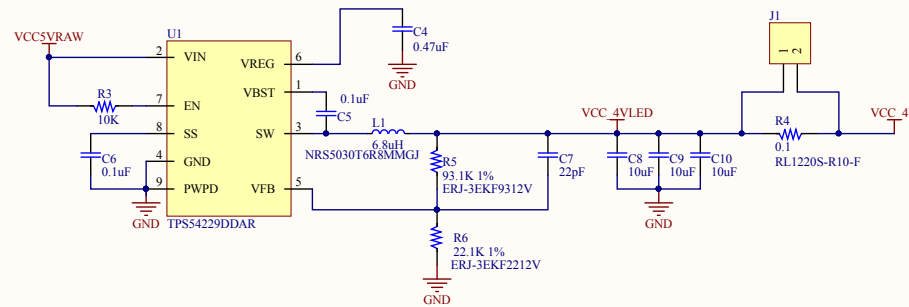
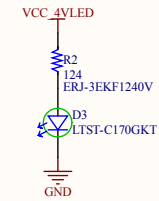
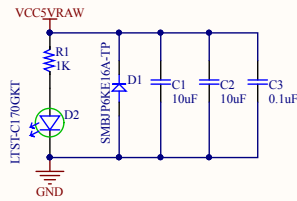
Jumper Output	UART CONNECTION
S0	*Default connection is I2C2
L	I2C2
H	CAN0

H=High, L=Low, X=Don't care




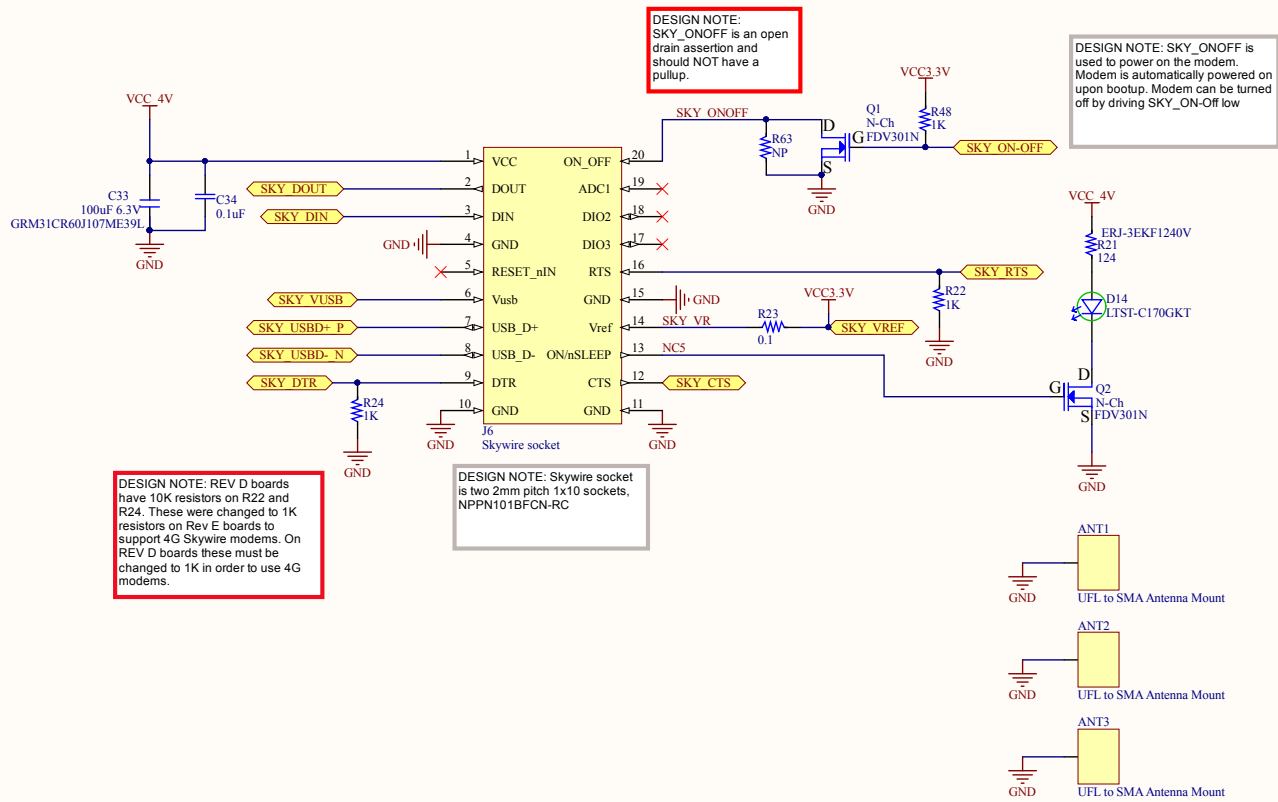
J7 is an unpopulated 2x3 pin header (0.1" spacing) to connect to CAN0/CAN1





© NimbeLink Corp. 2016. All rights reserved.

		www.nimbelink.com MINNEAPOLIS	
Title: Digital Power			
Project: NL-AB-BBBC		Size: C	Sheet 5 of 6
Number: 20018	Rev: 17	Modified: 3/22/2016	4:26:29 PM
Prepared for: Nimbelink BBBC Skywire Cape			



DESIGN NOTE:
SKY_ONOFF is an open drain assertion and should NOT have a pullup.

DESIGN NOTE: SKY_ONOFF is used to power on the modem. Modem is automatically powered on upon bootup. Modem can be turned off by driving SKY_ON-Off low

DESIGN NOTE: REV D boards have 10K resistors on R22 and R24. These were changed to 1K resistors on Rev E boards to support 4G Skywire modems. On REV D boards these must be changed to 1K in order to use 4G modems.

DESIGN NOTE: Skywire socket is two 2mm pitch 1x10 sockets, NPPN101BFCN-RC

© NimbeLink Corp. 2016. All rights reserved.

		www.nimbelink.com	
Title: Skywire Module		MINNEAPOLIS	
Project: NL-AB-BBBC	Size: C	Sheet 6	of 6
Number: 20018	Rev: 17	Modified: 3/22/2016	4:26:29 PM
Prepared for: Nimbelink BBBC Skywire Cape			