

1				2				3				4			
REV	DATE	BY	CHANGE												
1	7/12/12	GLS	Initial release												
A	8/22/12	GLS	Rotated Switch Changed IO per SW												
A1	10/26/12	GLS	Added Pushbuttons Changed P8 and P9 connections per xls from Monk Added Leds for AM335 Binding signals Added Reset Logic Add option to use UART1 Added pullups on AM EMx RSTn's with DNP for Pulldown if needed on PU added UART jumpers and Renamed per Roger Monk												

Chipcon RF boards, called CCxxxxEMKs mate into the pair of SMT board to board connectors on this adaptor  
Each EMK has two 20-pin mating connectors, traditionally called RF1 and RF2 with pins below

EMx\_RF1  
RF1 Connector

Pin#	EM Adapter Pin Assignment
1	GND
3	MODULE_UART_CTS
5	SLOW_CLK
7	MODULE_UART_RX
9	MODULE_UART_TX
11	I2C_SDA
13	I2C_SCL
15	SDIO_CLK
17	SDIO_CMD
19	GND
2	SDIO_D0
4	SDIO_D1
6	SDIO_D2
8	SDIO_D3
10	RF_GPIO0
12	RF_GPIO1
14	SPI_CS <sub>n</sub>
16	SPI_CLK
18	SPI_MOSI
20	SPI_MISO

EMx\_RF2  
RF2 Connector

Pin#	EM Adapter Pin Assignment
1	+1.8V (Optional)
3	+1.8V (Optional)
5	+1.8V (Optional)
7	+3.3V
9	+3.3V
11	MODULE_AUDIO_FSYNC
13	RF_GPIO2
15	CC_RSTN
17	MODULE_AUDIO_CLK
19	WCS_NSHUTD
2	GND
4	ANALOG_AUDIO_DATA_LEFT
6	ANALOG_AUDIO_DATA_RIGHT
8	MODULE_AUDIO_DATA_OUT
10	MODULE_AUDIO_DATA_IN
12	USBM
14	USBP
16	NC
18	MODULE_UART_RTS
20	RF_GPIO3

Beagle Bone RF Adaptor Cape RF Interface

Radio Pins as seen from the Top of the Cape

RJ45

EM1\_RF2

EM2\_RF1


EM1\_RF1

EM2\_RF2

NOTE RF Boards are rotated 180 Deg from one another to separete antennas

This work is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License. All derivative works are to be attributed to CircuitCo LLC.

beagleboardtoys is owned by CircuitCo LLC.

beagleboardtoys.com

1380 Presidential Dr.  
#100  
Richardson, TX 75081  
www.beagleboardtoys.com

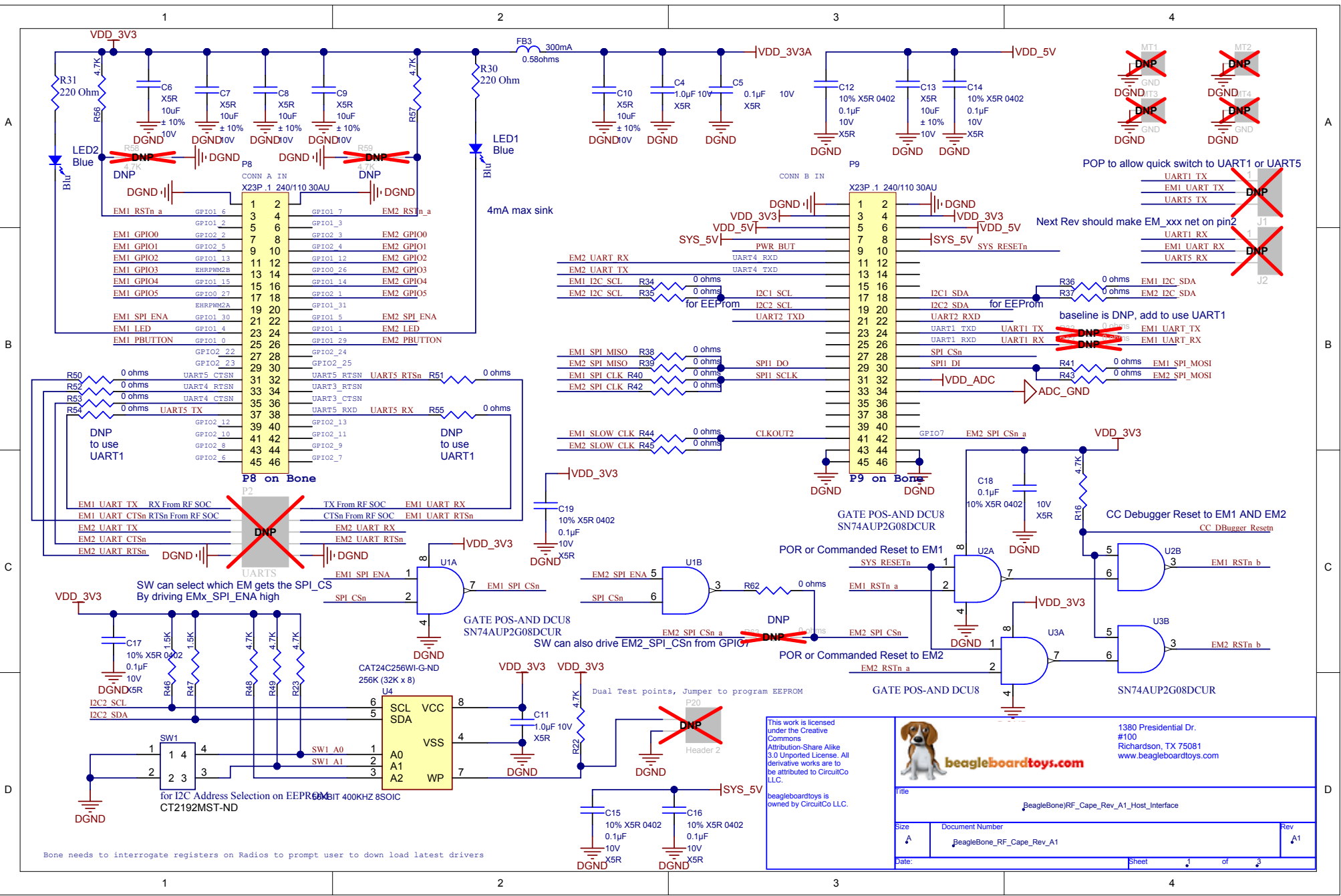
TitleBeagleBone\_RF\_Cape\_Rev\_A1\_CoverPage

SizeA

Document NumberBeagleBone\_RF\_Cape\_Rev\_A1

RevA1

Date:Sheet1 of 5



Bone needs to interrogate registers on Radios to prompt user to down load latest drivers

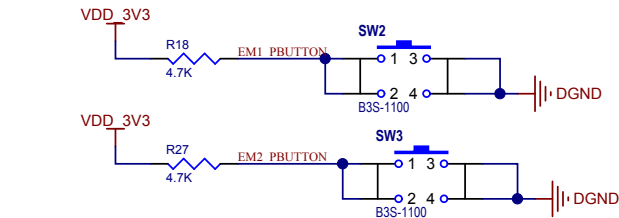
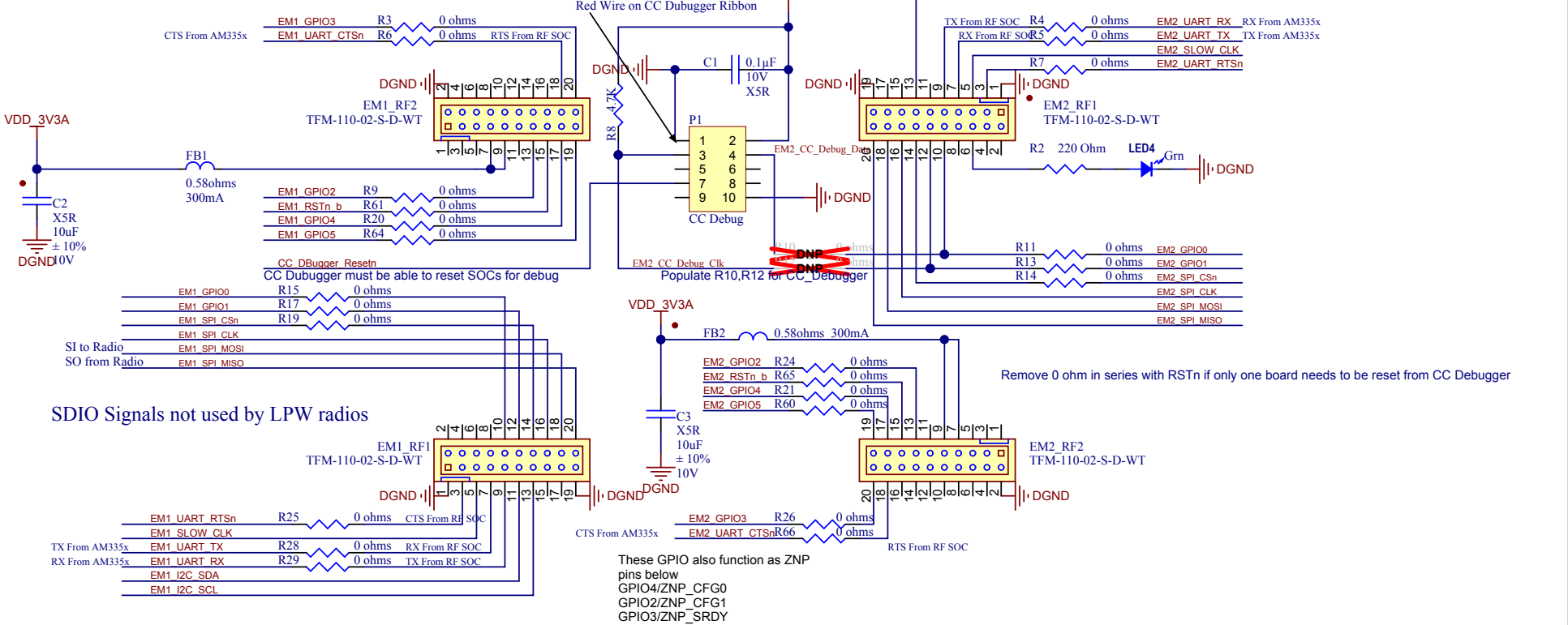
This work is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License. All derivative works are to be attributed to CircuitCo LLC.



1380 Presidential Dr.  
#100  
Richardson, TX 75081  
www.beagleboardtoys.com

Title			BeagleBone)RF_Cape_Rev_A1_Host_Interface		
Size	Document Number		BeagleBone_RF_Cape_Rev_A1		Rev
A					A1
Date:			Sheet	1	of 3

The Beagle Bone RF Adaptor is meant to be the top most board in stack to maximize the performance of any antenna structures on the radio board installed on this adaptor  
 RF Adaptor connectors as seen from TOP. (Expansion Headers go down to Bone Board)  
 The Radio CCxxx-EMK connectors are spaced 1200mils center to center and are pushed all the way at the bottom on the card outline.



This work is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License. All derivative works are to be attributed to CircuitCo LLC.

beagleboardtoys is owned by CircuitCo LLC.

beagleboardtoys.com

1380 Presidential Dr.  
 #100  
 Richardson, TX 75081  
[www.beagleboardtoys.com](http://www.beagleboardtoys.com)

Title BeagleBone_RF_Cape_Rev_A1_EMinf		
Size A	Document Number BeagleBone_RF_Cape_Rev_A1	Rev A1
Date:	Sheet	1 of 3