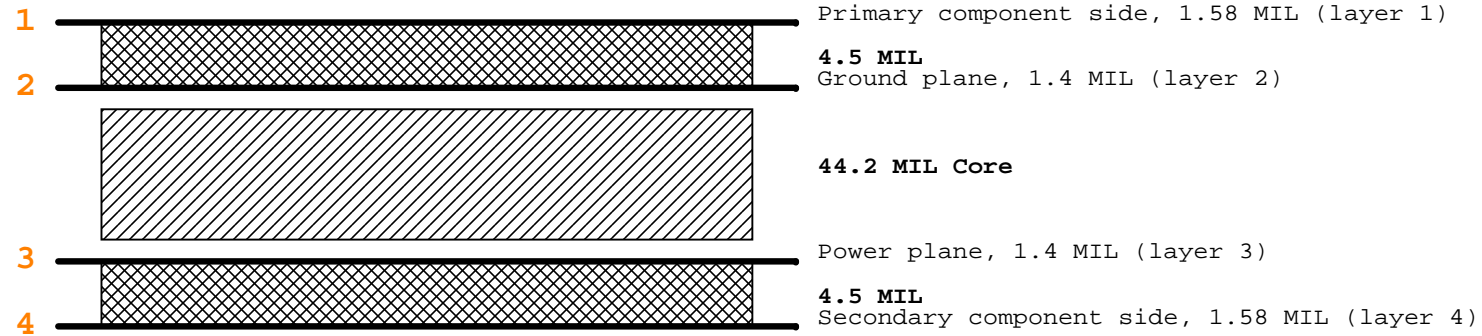



**LAYOUT NOTES:**

- 1) 4 layer board.
- 2) Use standard FR-406 or FR-370HR.
- 3) 5% impedance tolerance.
- 4) Minimum 4 standoffs on each corner of board. (0.156 X 4).



 Core Material

 Prepreg Material

Title		
Board Stackup		
Size	Document Number	Rev
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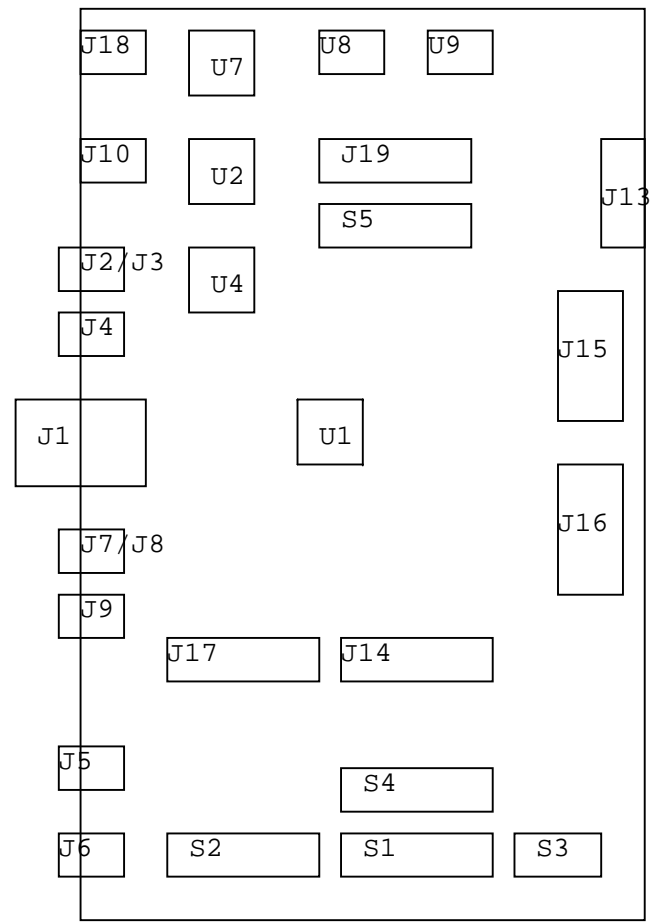
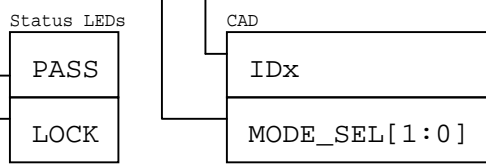
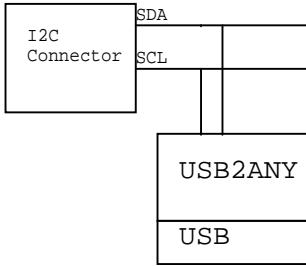
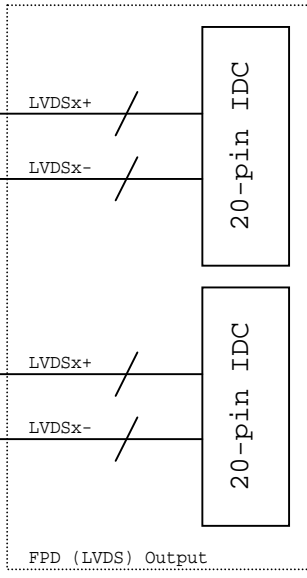
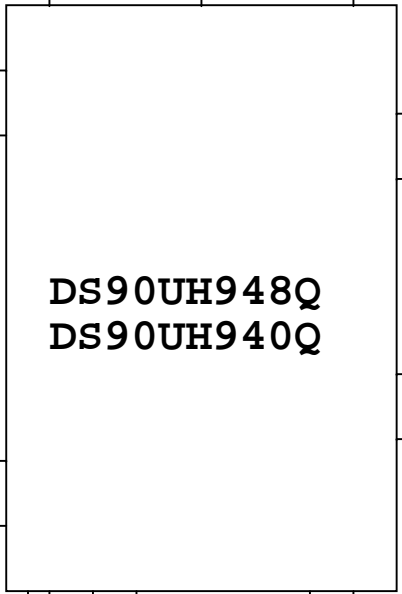
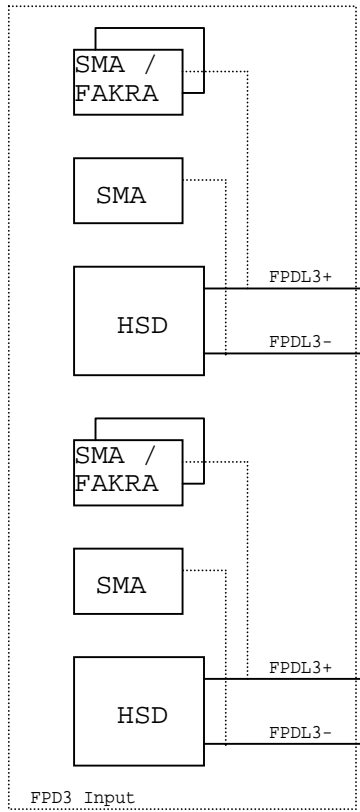
# Board Block Diagram

Approximate layout of major components/connectors

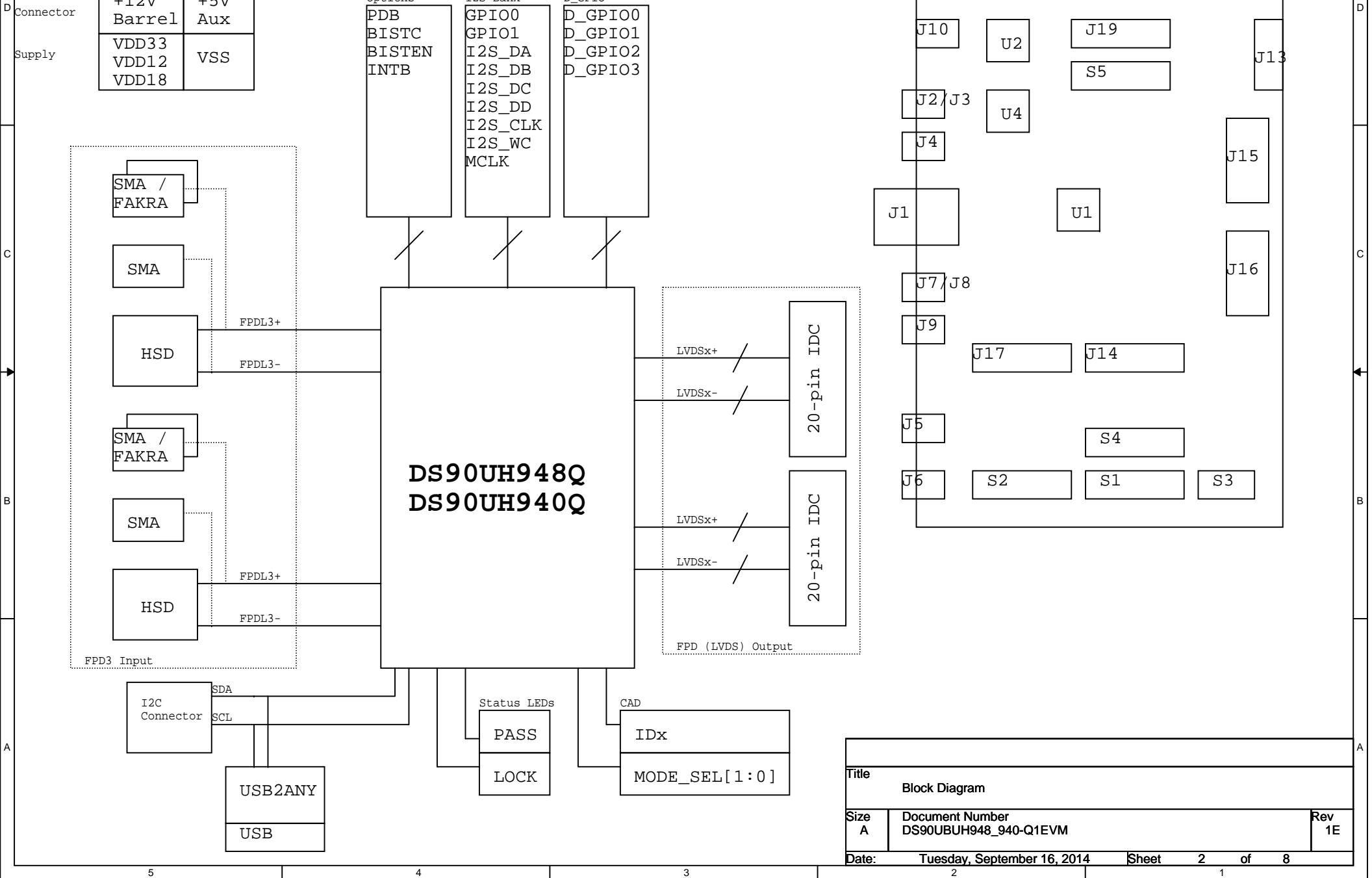
Connector  
Supply

Power	
+12V Barrel	+5V Aux
VDD33	VSS
VDD12	
VDD18	

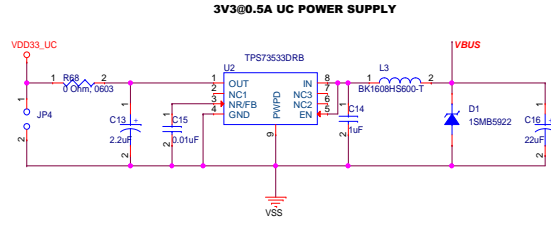
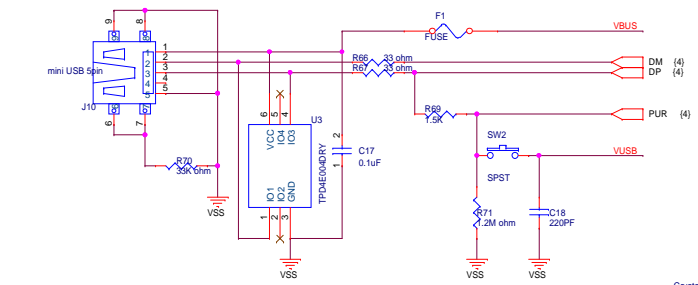
Options	I2S Bank	D_GPIO
PDB	GPI00	D_GPIO0
BISTC	GPI01	D_GPIO1
BISTEN	I2S_DA	D_GPIO2
INTB	I2S_DB	D_GPIO3
	I2S_DC	
	I2S_DD	
	I2S_CLK	
	I2S_WC	
	MCLK	



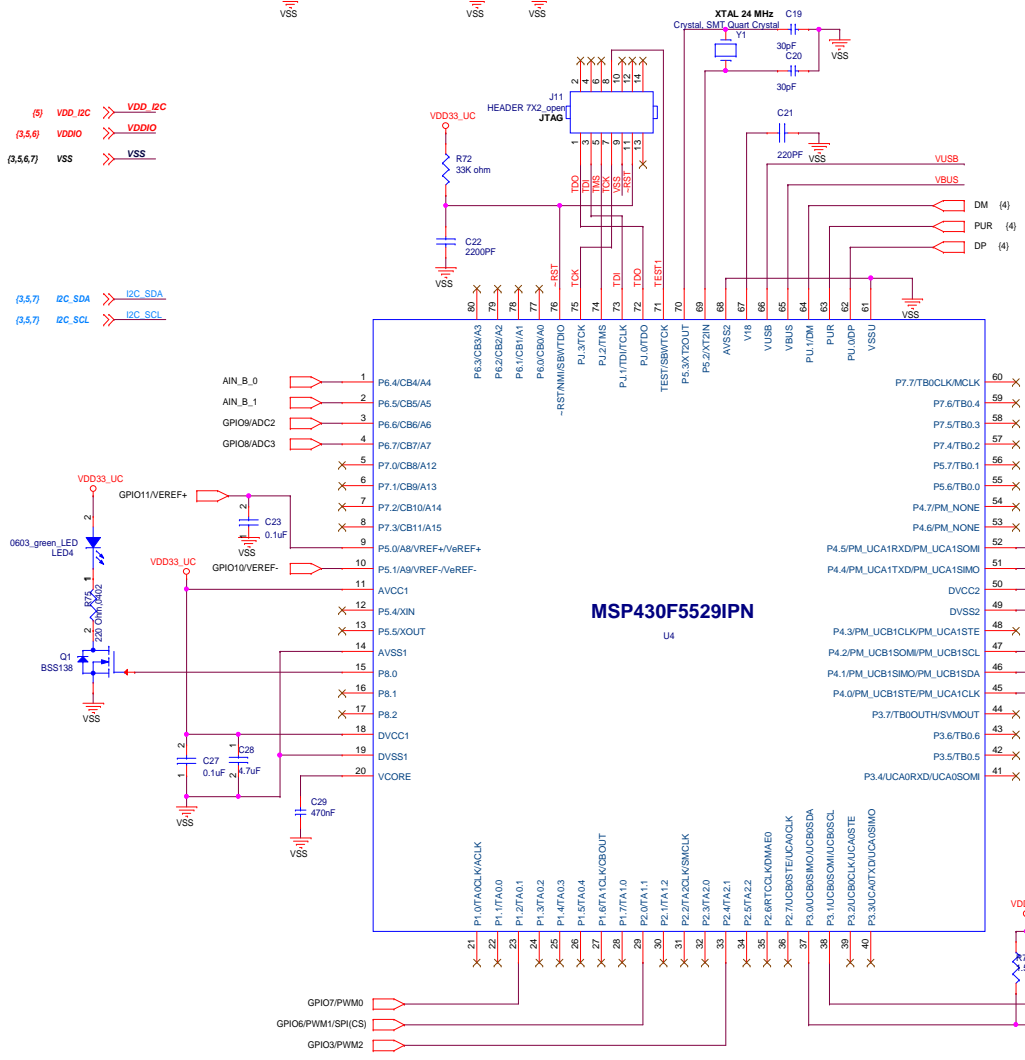
Title Block Diagram		
Size A	Document Number DS90UBUH948_940-Q1EVM	Rev 1E
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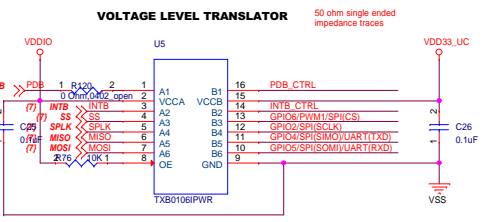
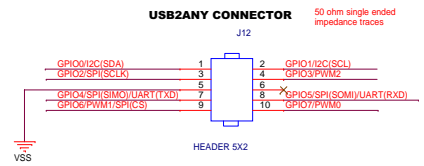




- (3,5,7) VDD\_UC >>> VDD\_IC
- (3,5,6) VDDIO >>> VDDIO
- (3,5,6,7) VSS >>> VSS
- (3,5,7) I2C\_S0A >>> I2C\_SDA
- (3,5,7) I2C\_SCL >>> I2C\_SCL

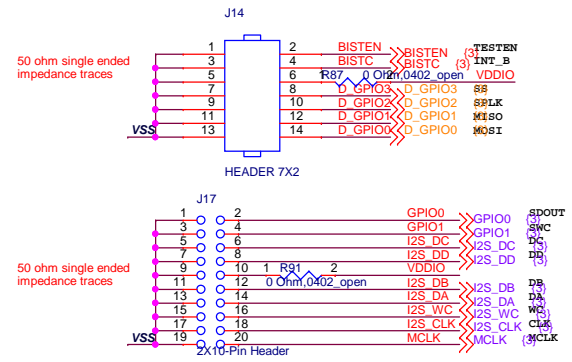
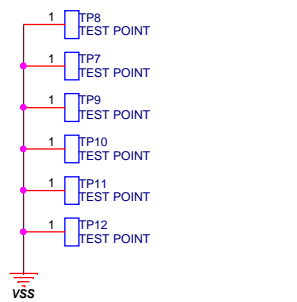
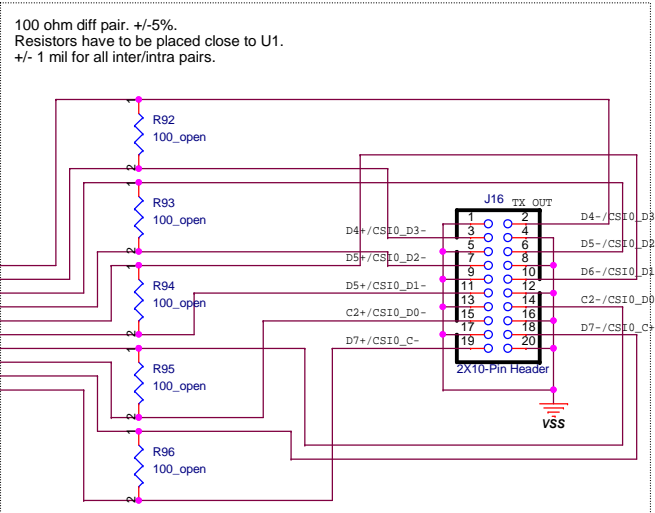
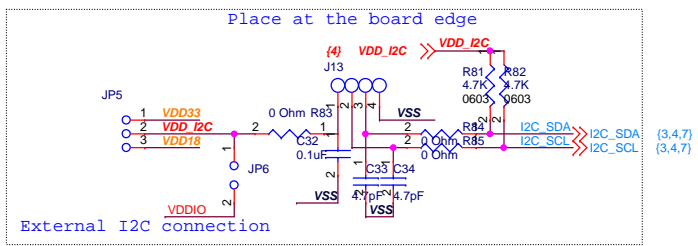
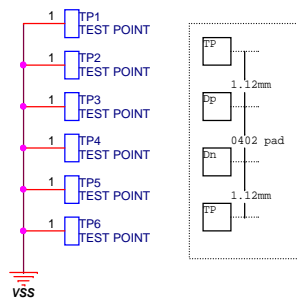
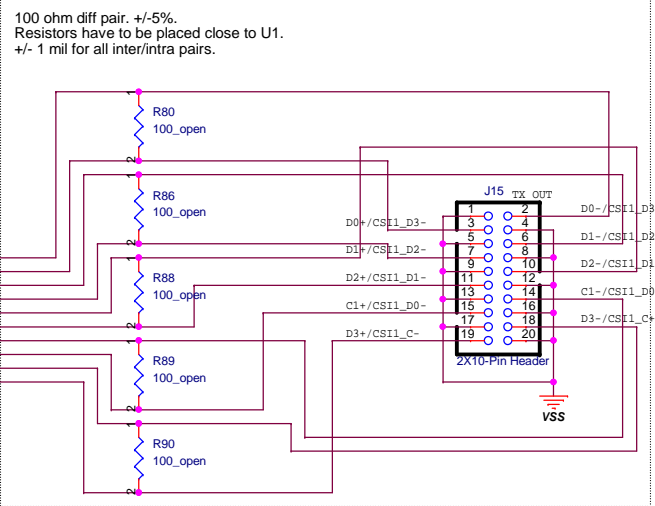


NOTE: Float p2.3, p2.5, and p2.6 on MSP430 for USB2ANY detection

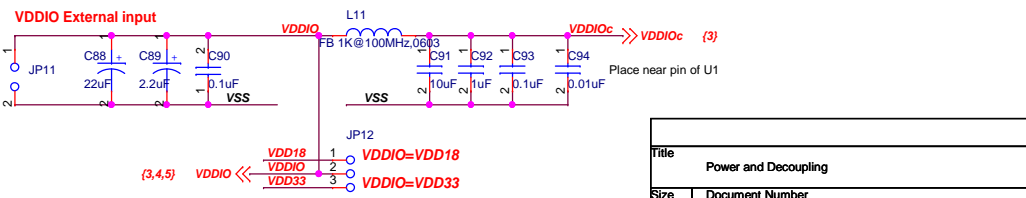
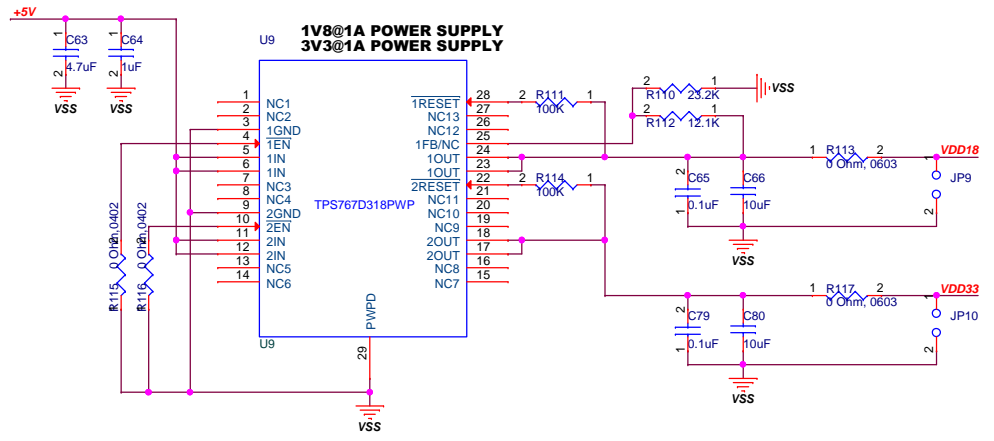
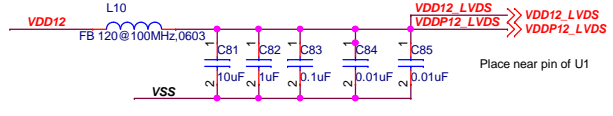
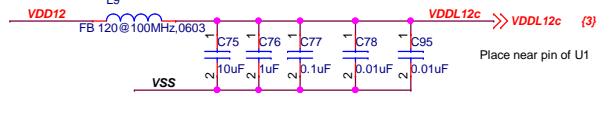
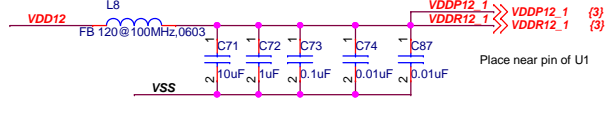
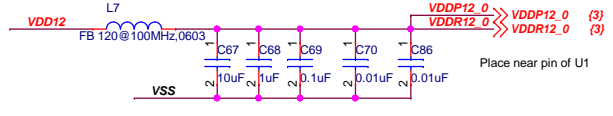
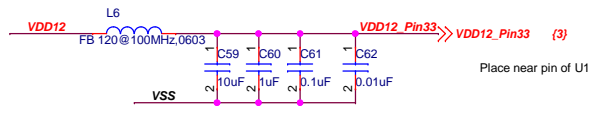
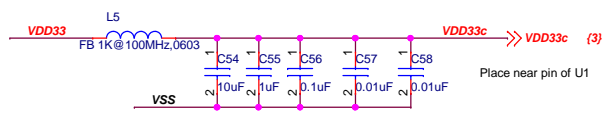
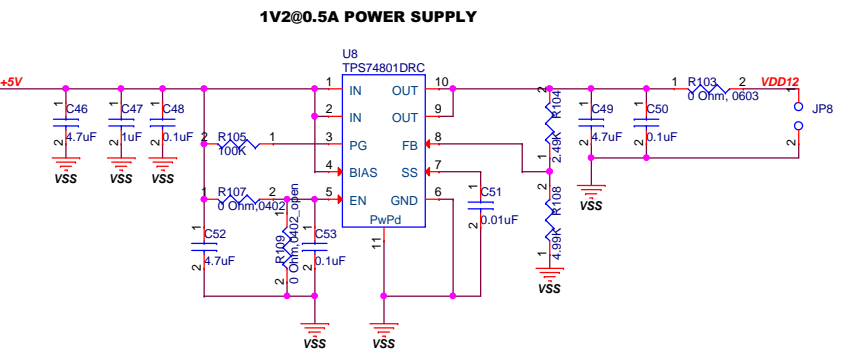
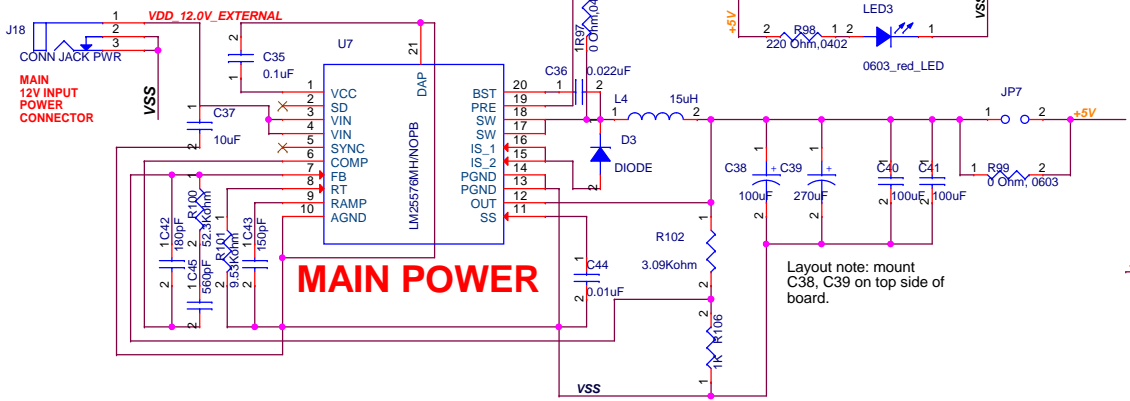


Title		USB Controller	Rev	1E
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(3,4,6,7) VSS  
 (6,7) VDD33  
 (6) VDD18  
 (3,4,6) VDDIO



Title		
Output and Termination		
Size B	Document Number	Rev 1E
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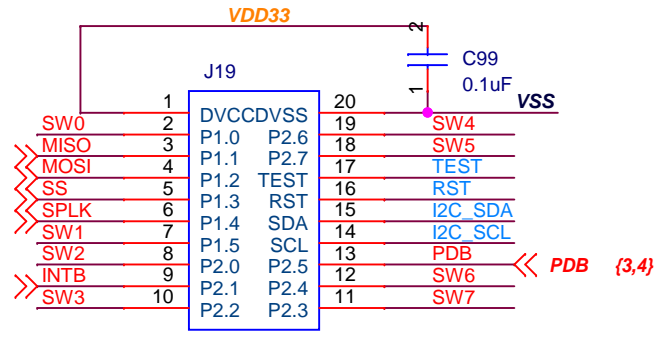


(3,4,5,7) VSS >> VSS  
 (5,7) VDD33 >> VDD33  
 (5) VDD18 >> VDD18

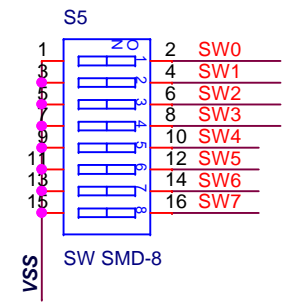
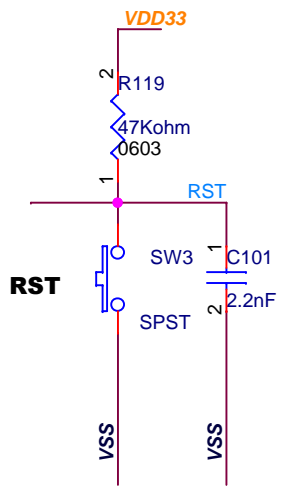
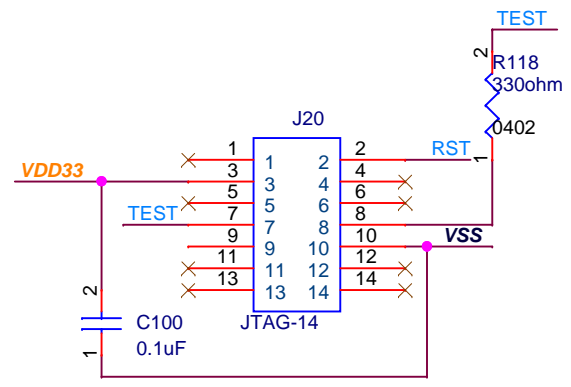
Title Power and Decoupling		
Size	Document Number DS90UBUH948_940-Q1EVM	Rev 1E
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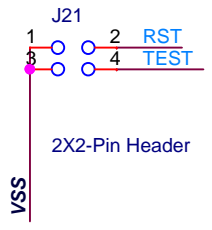
- {4} MISO
- {4} MOSI
- {4} SS
- {4} SPLK
- {4} INTB



DIP20 SOCKET - MSP430G2403IN20



Put RST switch at the bottom edge of the board. Mark down every Netname to the position



Title		
External MSP430 Controller		
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Rev 1A

-Initial version

Rev 1B

- Changed R21, R29, R52 to 240K
- Changed R22, R30, R53 to 196K
- Changed R23, R31, R54 to 162K
- Changed R24, R32, R55 to 120K
- Changed R25, R33, R56 to 100K
- Changed C3, C4, C6, C7 to 0.033uF
- Added C102, C103 0.1uF
- Corrected BOM mfr p/n for: C15, C44, C51, C57, C58, C62, C70, C74, C78, C84, C85, C97
- Added C86, C87, C95 0.01uF
- Updated BOM p/n for J14

Rev 1C

- Remapped J14 signals for flowthrough
- Deleted R39, R51

Rev 1D

- Connected signal " GPIO5/SPI(SOMI)/UART(RXD) " to the J12
- Corrected BOM for R105, R111, R114
- Updated U5, U7 Value to match Part number in BOM

Rev 1E

- Added VSS connections to LED1, LED2
- Updated MODE\_SEL0/1 resistors R5-R36
- Updated IDX resistors R40-R47
- J17 changed p/n
- Added R120
- Updated LED3 p/n

Title		
Revision History		
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