


# LAN9252-HBI&SPI+GPIO-EVB

## LAN9252(Config 3 & Config 5)

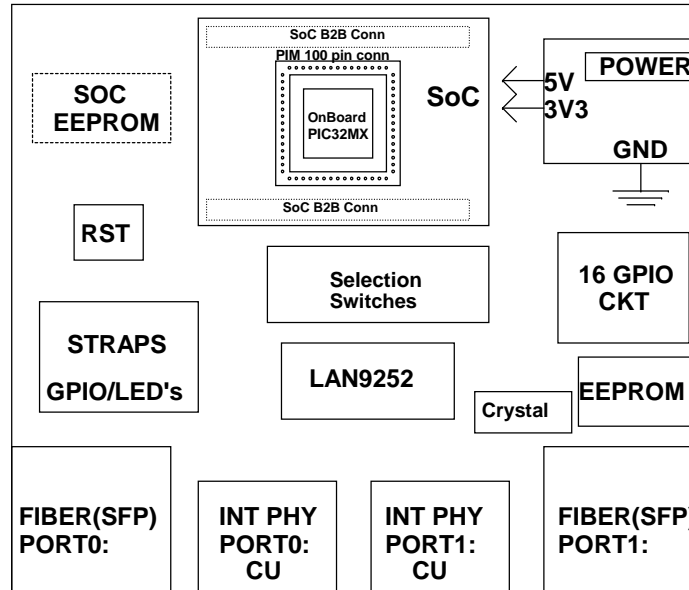
Page No.	Schematic Page
1	Title
2	Block Diagram
3	Power Supply & RST
4	LAN9252
5	Copper Mode Interface
6	SFP Interface
7	STRAP,GPIO,I2C & FXLOS
8	B2B Interface
9	ON-Board-PIC32MX
10	16GPIO(Config5)

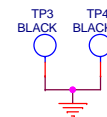
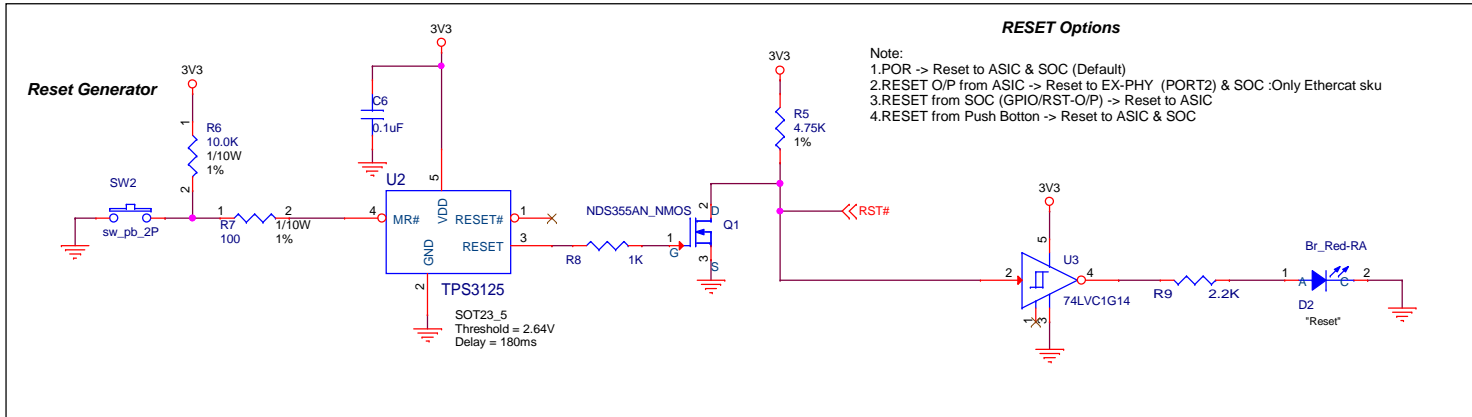
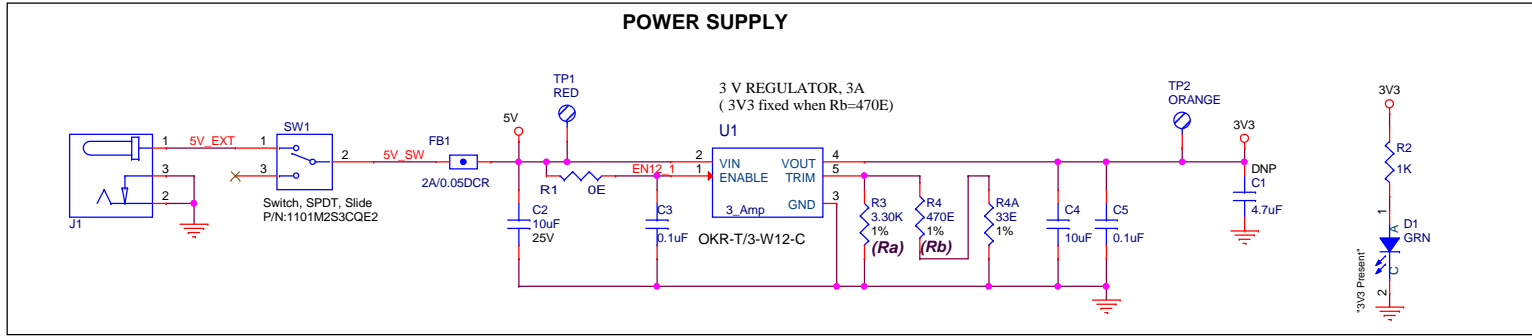


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Part Number:	LAN9252-HBI&SPI+GPIO-EVB	Page:	TITLE				
Size:	B	Project Name:	LAN9252-HBI&SPI+GPIO-EVB	Board Name:	EVB2-9252-HBI&SPI+GPIO-RevB	Rev	B
Date:	Monday, December 08, 2014			Sheet	1	of	10

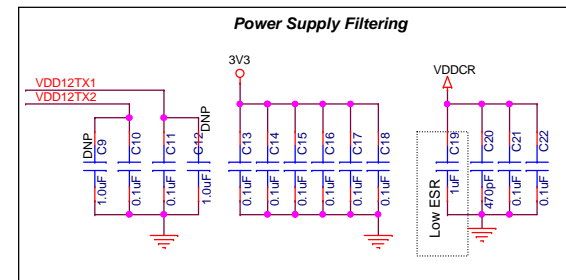
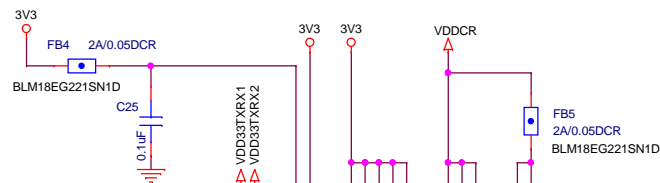
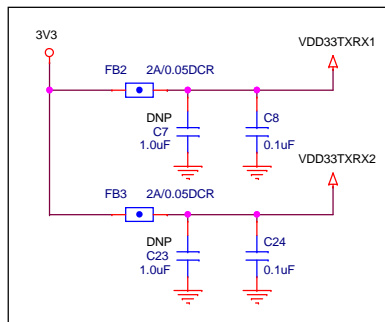
## LAN9252-HBI&SPI+GPIO-EVB Block Diagram



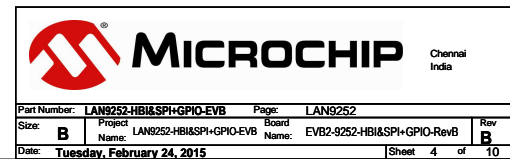
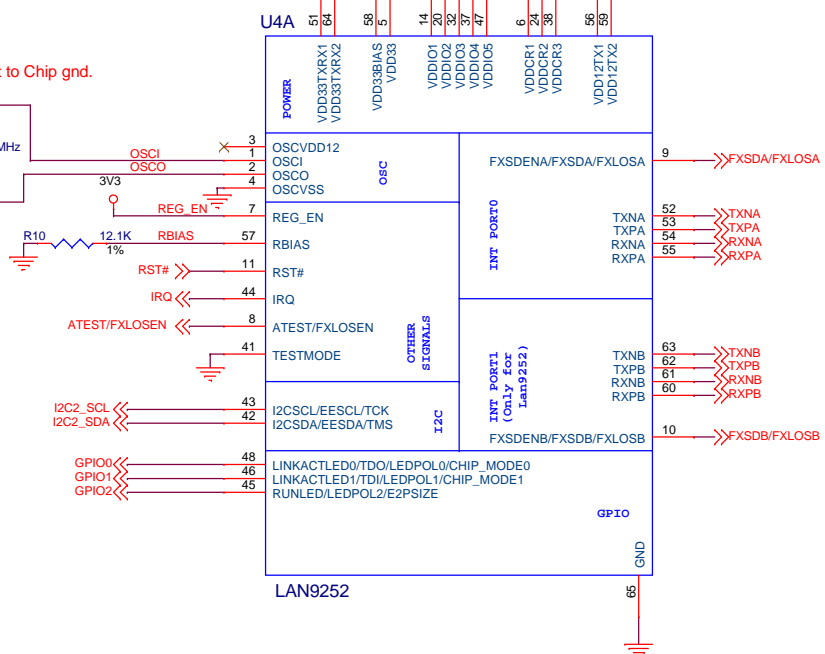
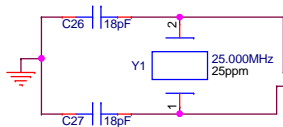


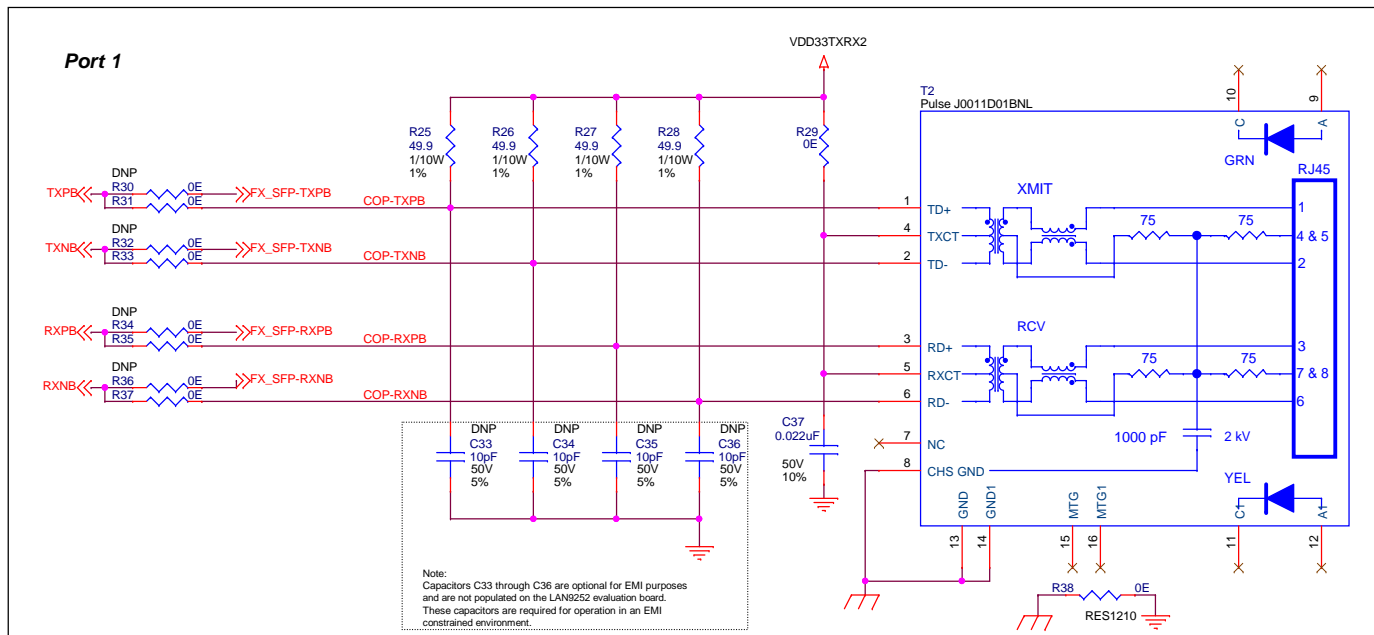
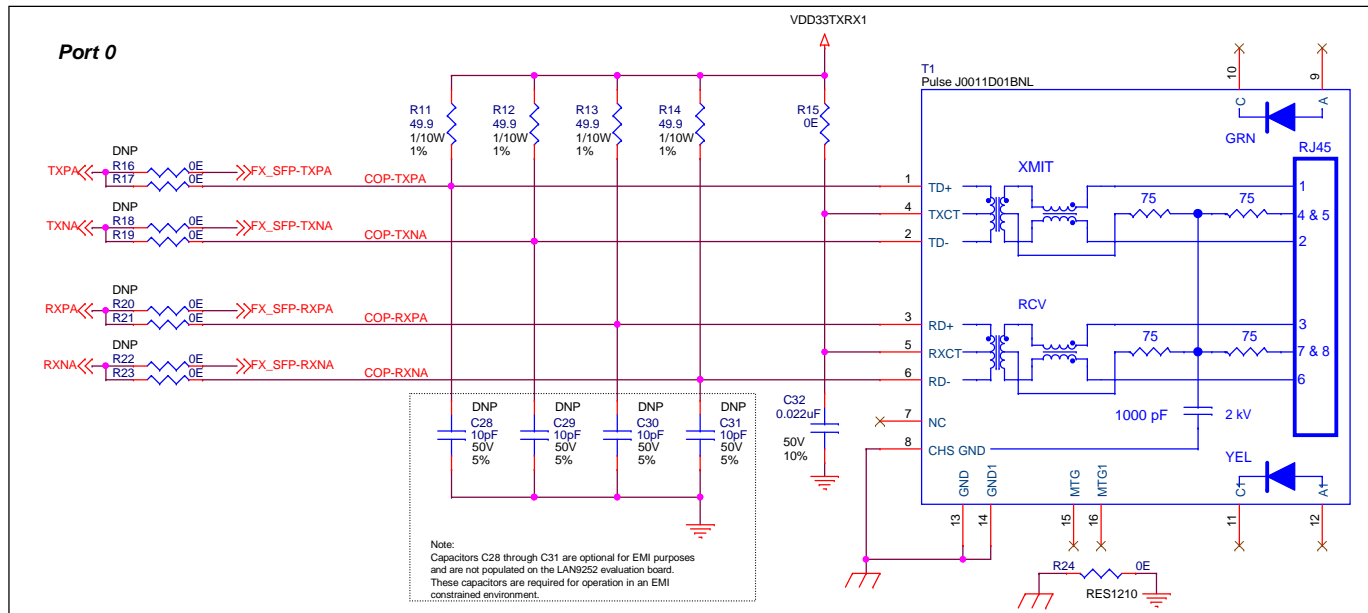
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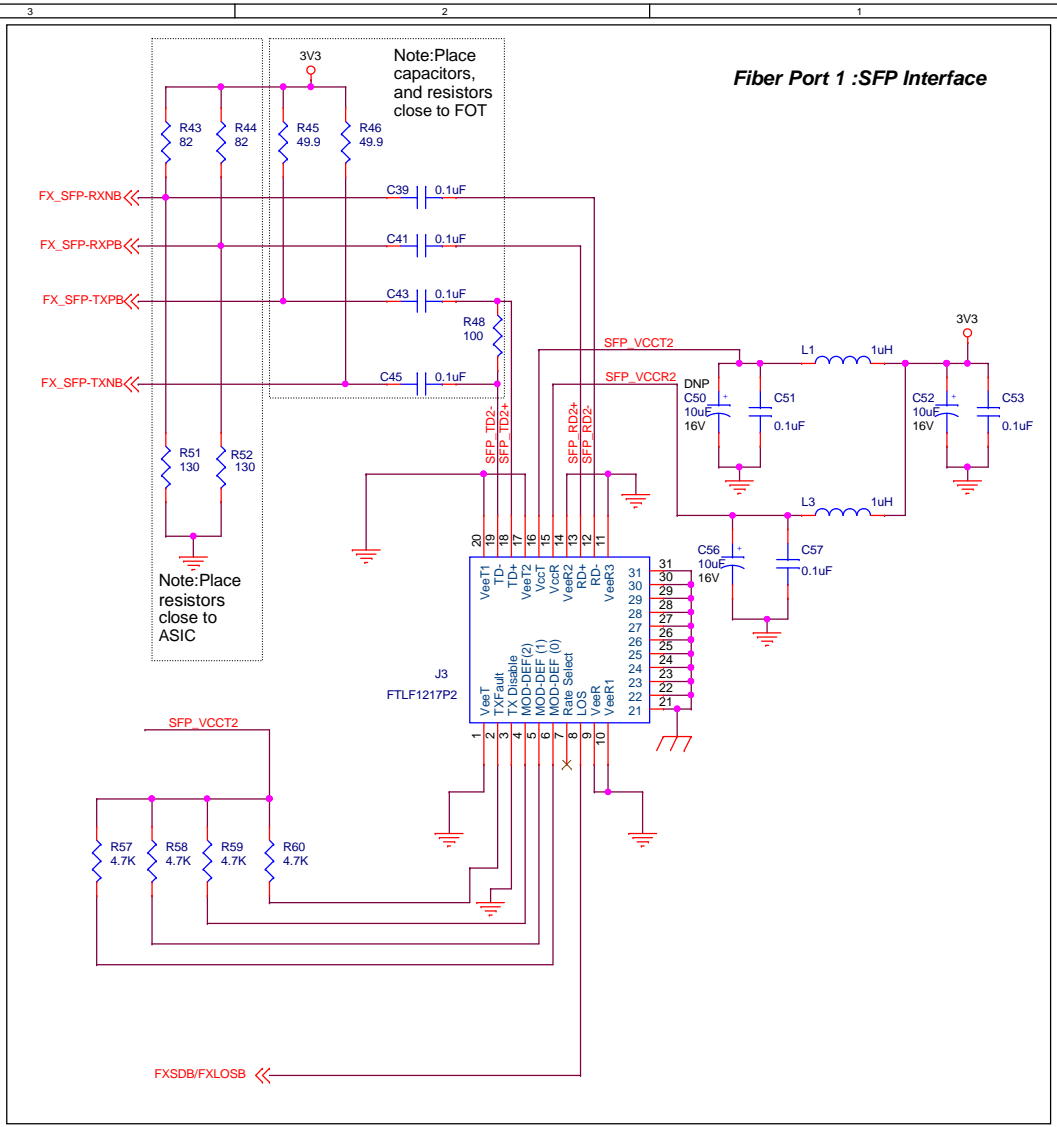
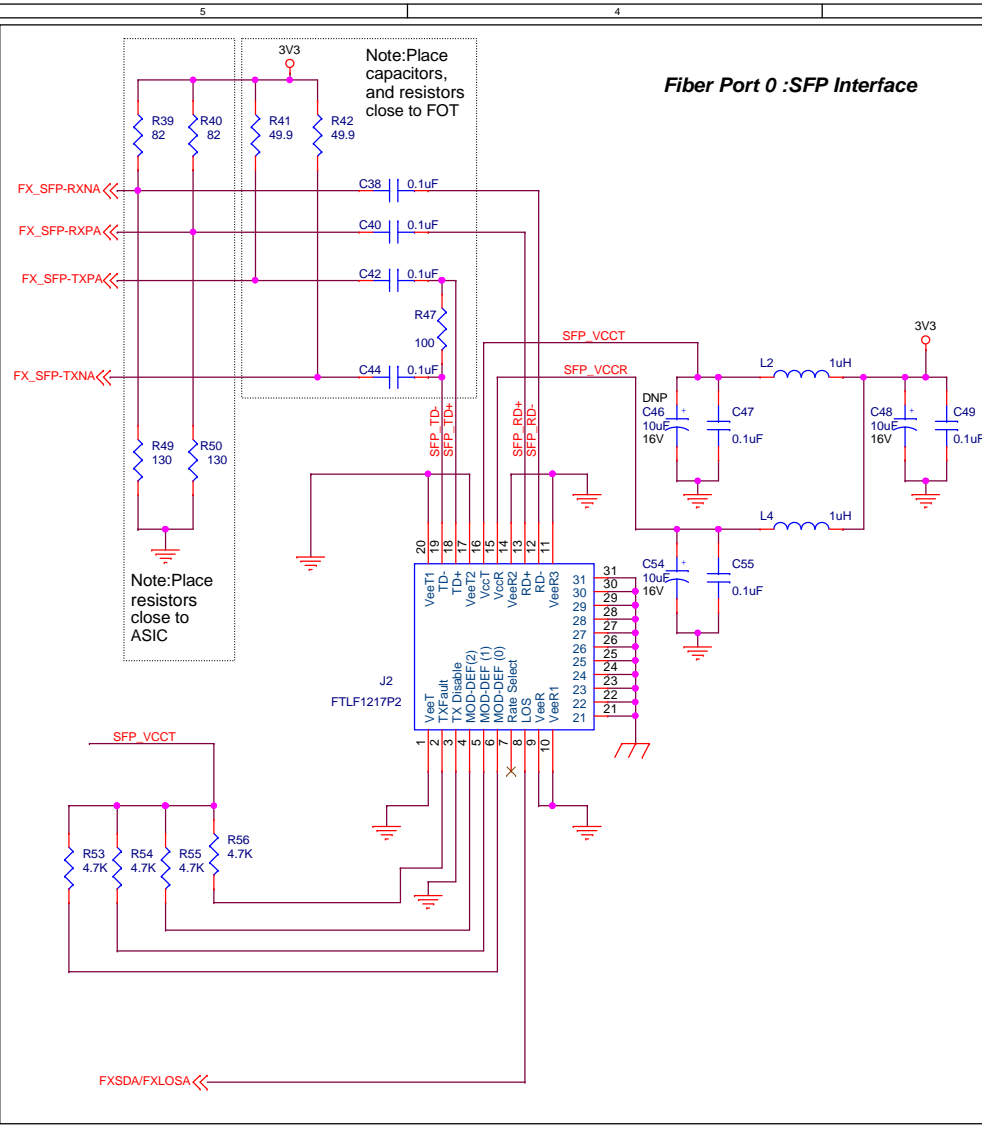
Part Number: LAN9252-HBI&SPI+GPIO-EVB	Page: Power Supply & RST
Size: B	Project Name: LAN9252-HBI&SPI+GPIO-EVB
Date: Monday, December 08, 2014	Board Name: EVB2-9252-HBI&SPI+GPIO-RevB
	Rev: B
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Note:  
OSC VSS need to connect to Chip gnd.



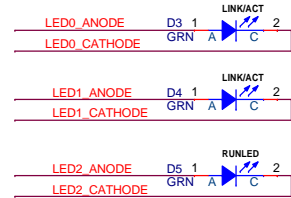
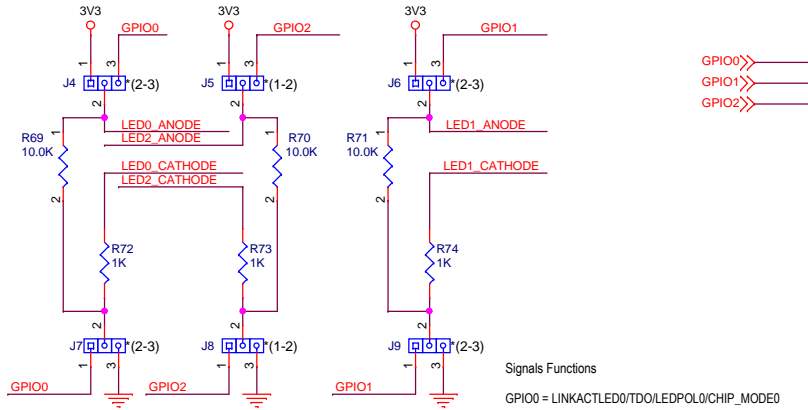




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Part Number:	LAN9252-HBI&SPI+GPIO-EVB	Page:	SFP Interface
Size:	B	Project Name:	LAN9252-HBI&SPI+GPIO-EVB
Date:	Monday, December 08, 2014	Board Name:	EVb2-9252-HBI&SPI+GPIO-RevB
		Rev	B
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### GPIO [0:2] & LED\_POL\_Strap



Signals Functions  
 GPIO0 = LINKACTLED0/TDO/LEDPOL0/CHIP\_MODE0  
 GPIO1 = LINKACTLED1/TDI/LEDPOL1/CHIP\_MODE1  
 GPIO2 = RUNLED/LEDPOL2/E2PSIZE

#### CHIP\_MODE[1:0] Strap Details

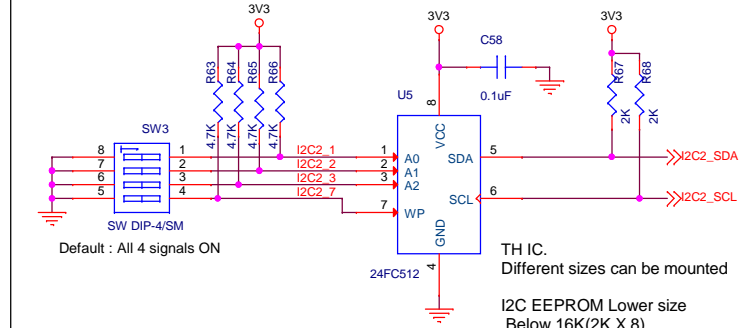
CHIP_MODE[1:0]	Port Description	MODE
00[Default]	Port 0 = PHY A, Port 1 = PHY B	2 PORT MODE
01	RESERVED	RESERVED
10	Port 0 = PHY A, Port 1 = PHY B, Port 2 = MII	3 PORT DOWNSTREAM MODE
11	Port 0 = MII, Port 1 = PHY B, Port 2 = PHY A	3 PORT UPSTREAM MODE

#### Strap Details

Signal Name	Logic	Connector	LED Polarity Strap
CHIP_MODE0	0	J4,J7 (2&3) Default	The LED is set as active high.
	1	J4,J7 (1&2)	The LED is set as active low.
CHIP_MODE1	0	J6,J9 (2&3) Default	The LED is set as active high.
	1	J6,J9 (1&2)	The LED is set as active low.
E2PSIZE	0	J5,J8 (2&3)	The LED is set as active high. EEPROM Size=1K bits (128 x 8) through 16K bits (2K x 8)
	1	J5,J8 (1&2) Default	The LED is set as active low. EEPROM Size=32K bits (4K x 8) through 512K bits (64K x 8) or 4Mbits (512K x 8) (LAN9252 only) [Default]

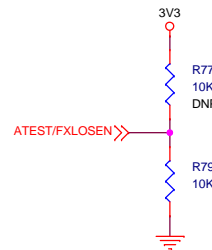
**Note:**  
 --To use GPIOs as LED  
 \* Short 2-3 of both jumpers (ex. for GPIO0 short 2-3 of J4 & J7)

### I2C EEPROM



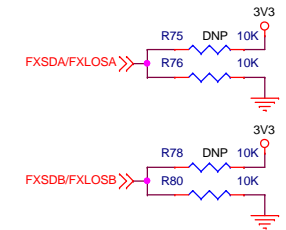
TH IC.  
 Different sizes can be mounted  
 I2C EEPROM Lower size  
 Below 16K(2K X 8)  
 I2C EEPROM Higher size  
 Above 16K(2K X 8)

### FX\_Los\_Strap\_1 & 2



R77	R79	Ref.Voltage	Function
Pouppulate	DNP	3V3	Above 2 V selects FX-LOS for ports 0 and 1
Pouppulate	Pouppulate	1V5	Level of 1.5 V selects FX-LOS for port 0 and FX-SD/copper twisted pair for port 1 further determined by FXSDB
DNP (Default)	Pouppulate (Default)	0 (Default)	Level of 0V Selects FX-SD / copper twisted pair for ports A and B further determined by FXSDA and FXSDB.

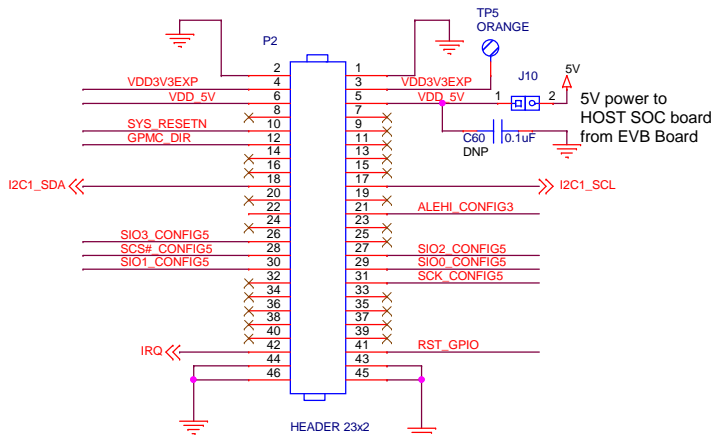
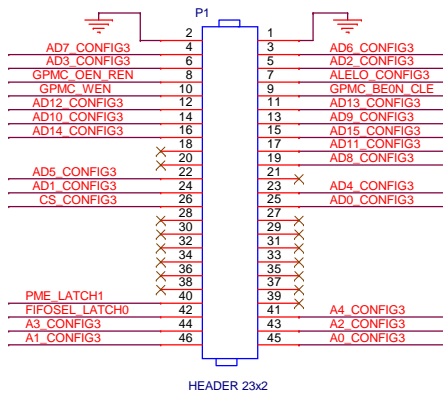
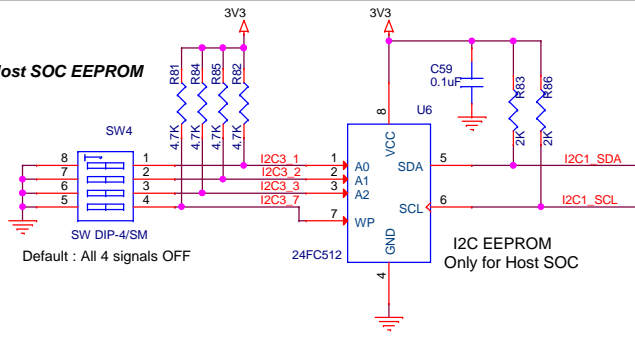
### FX\_Mode\_Strap\_1 & 2



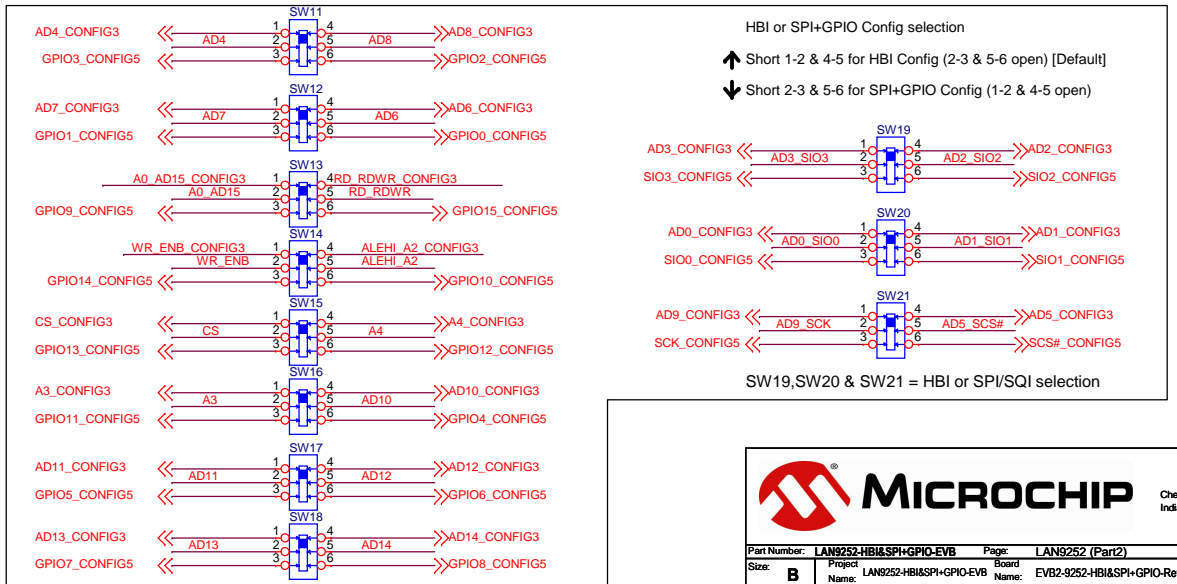
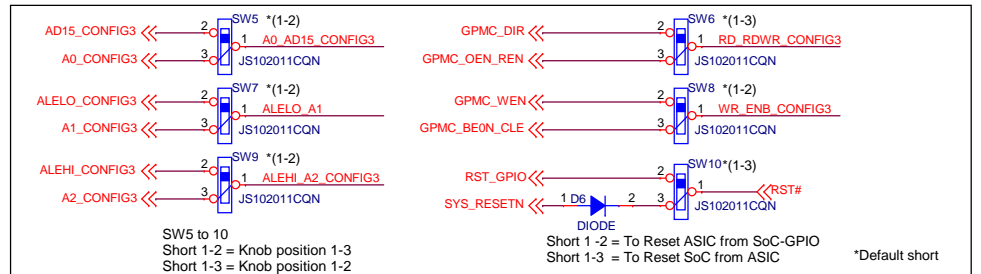
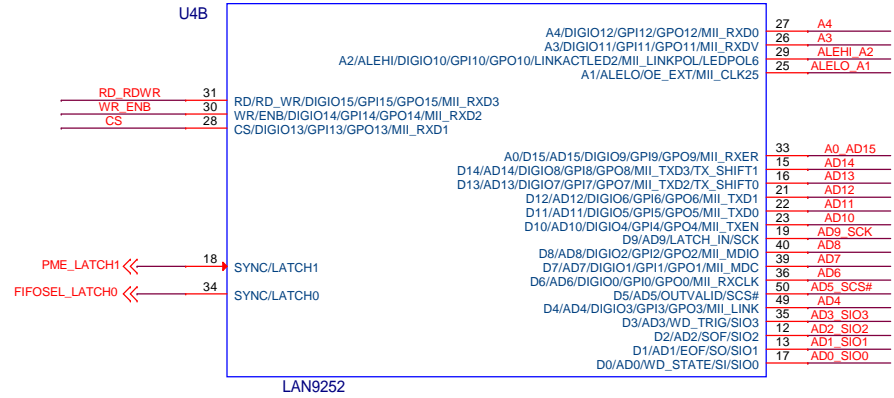
PORT	MODE	Pouppulate	DNP
PORT0	Copper (Default)	R76	R75
	Fiber	R75	R76
PORT1	Copper (Default)	R80	R78
	Fiber	R78	R80

Part Number: LAN9252-HBI&SPI+GPIO-EVB Page: STRAP.GPIO.I2C & FXLOS  
 Size: B Project Name: LAN9252-HBI&SPI+GPIO-EVB Board Name: EVB2-9252-HBI&SPI+GPIO-RevB Rev: 10  
 Date: Tuesday, February 24, 2015 Sheet 7 of 10

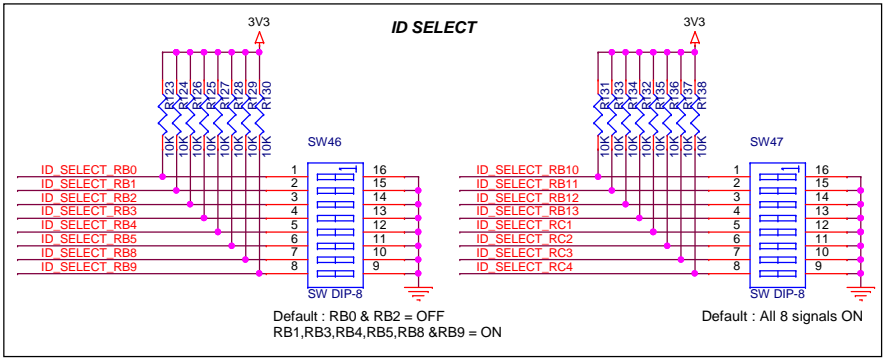
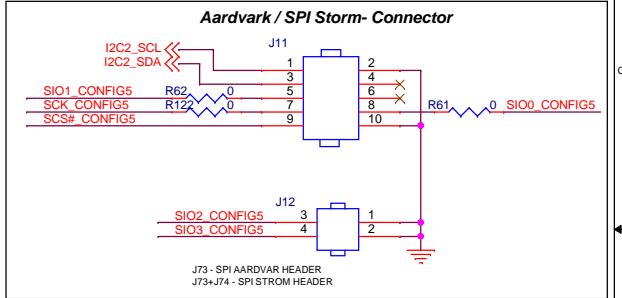
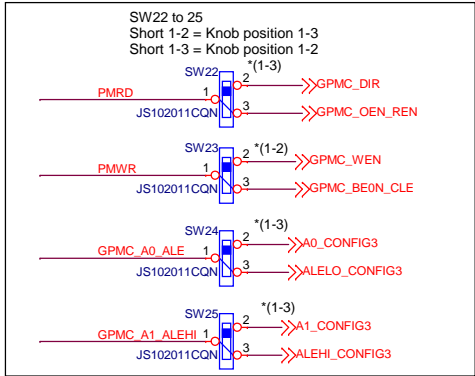
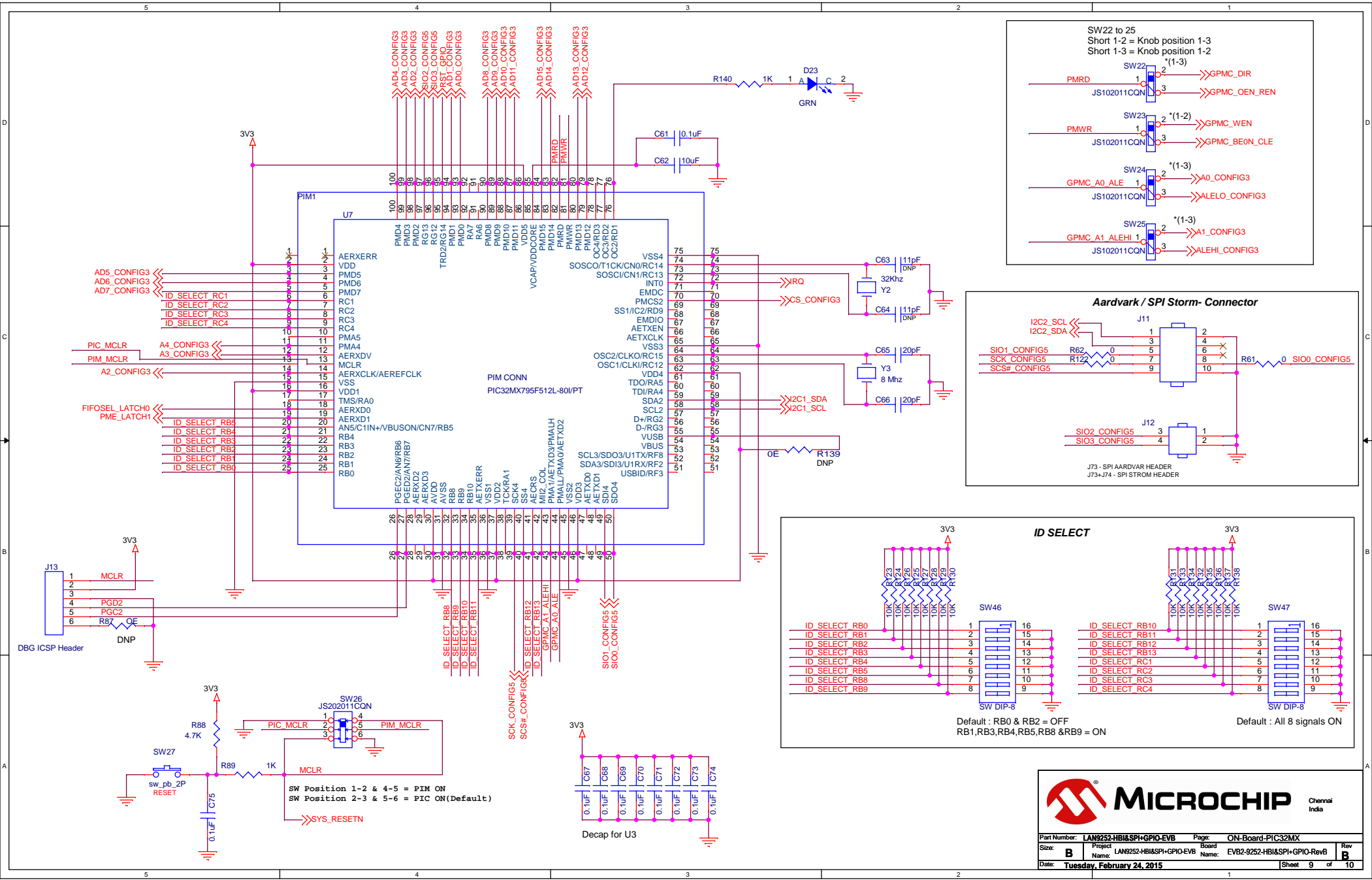
**Host SOC EEPROM**



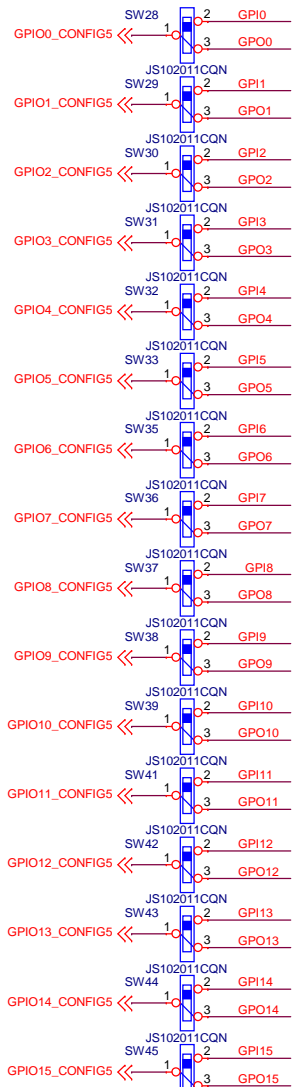
**Board to Board Connectors for SoC**







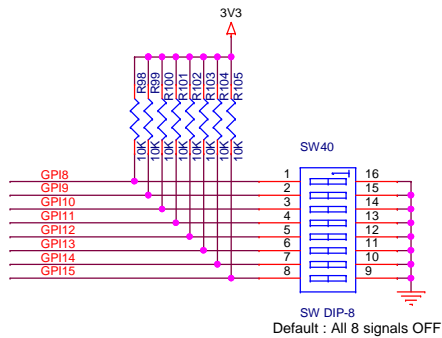
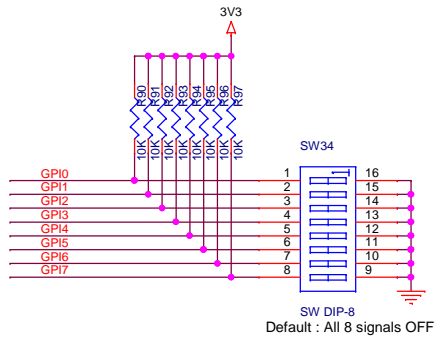
Part Number: LAN9252-HBI&SPI+GPIO-EVB Page: ON-Board-PIC32MX  
Size: B Project Name: LAN9252-HBI&SPI+GPIO-EVB Board Name: EVB2-9252-HBI&SPI+GPIO-RevB Rev B  
Date: Tuesday, February 24, 2015 Sheet 9 of 10



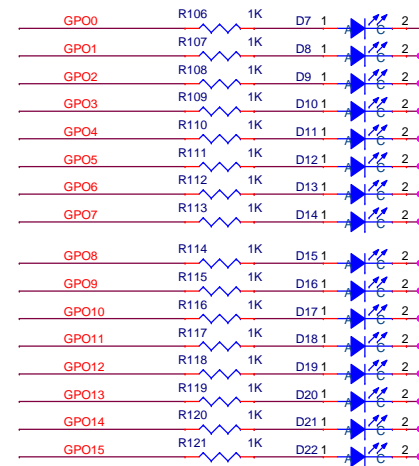
Default KNOB position  
 SW28-SW33, SW35-SW39, SW41-SW45- (1-3)

### Digital INPUTS

Default  
 SW34 & SW40 are in OFF position (Pullup active)  
 For Pull Down, move SW34 & SW40 to ON position



### Digital OUTPUTS



Part Number: LAN9252-HBI&SPI+GPIO-EVB Page: 16GPIO(Contig5)  
 Size: B Project Name: LAN9252-HBI&SPI+GPIO-EVB Board Name: EVB2-9252-HBI&SPI+GPIO-RevB Rev B  
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