UNG_8266_EVB-LAN9254-DIGIO

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Revision History

Rev.	Date	Revision Summary	Author
A00	04 20 2020	Initial Version	Xuelu Li

Microchip Technology, Inc.
USB/Network Group - UNG
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Description: LAN9254 Evaluation Board			
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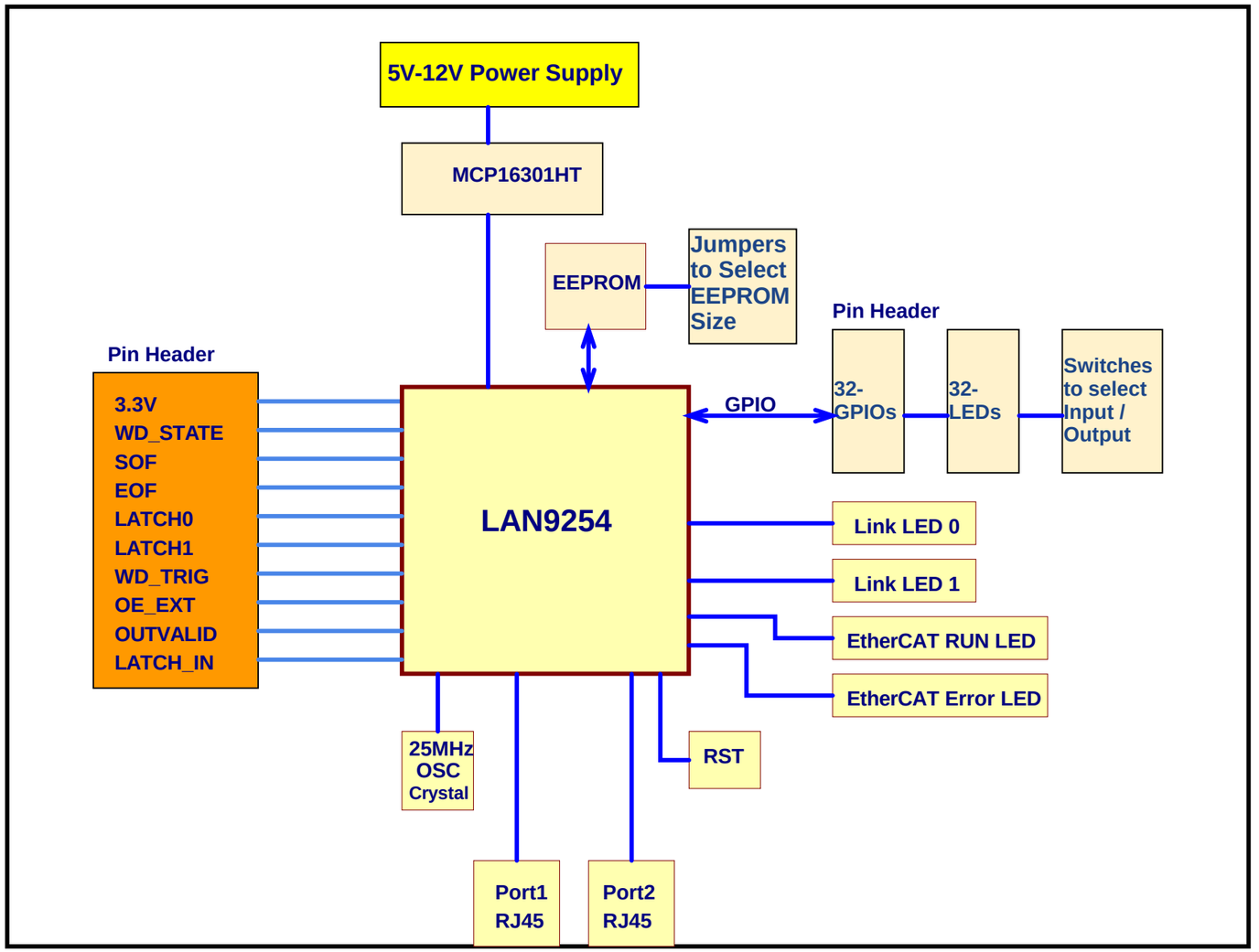
Size: B	Date: 5/4/2020	Designer: Xuelu Li	Sheet 1 of 8 Rev A0

Block Diagram

EVB-LAN9254-DIGIO
Block Diagram



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Description: LAN9254 Evaluation Board			
Page Title: Block Diagram			
Project Name: EVB-LAN9254-DIGIO		PN: EVB-LAN9254-DIGIO	
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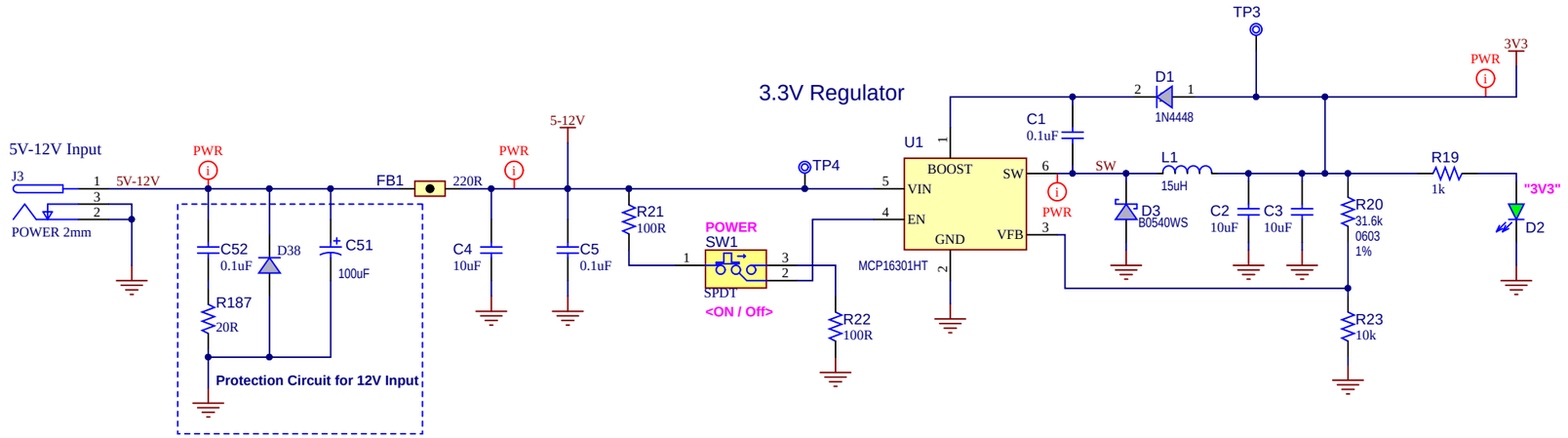
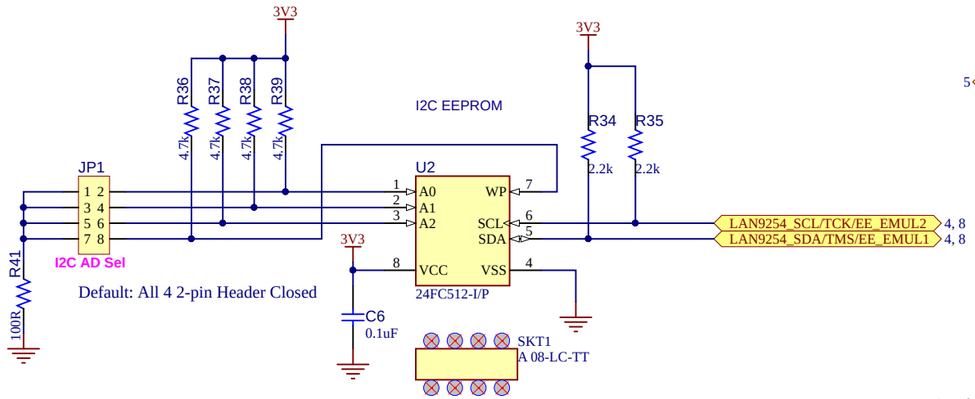
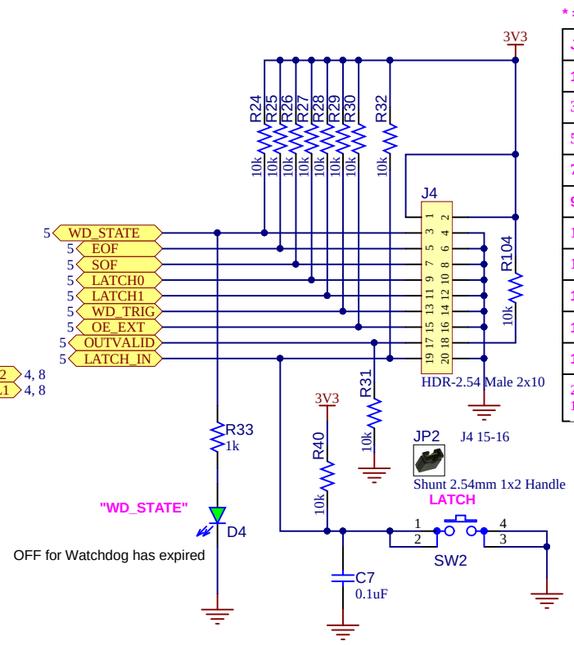
Power Supply and EEPROM







* = Default jumper position

J4 Pins#	Marking
1, 2	3.3V
3	WD_STATE
5	EOF
7	SOF
9	LATCH0
11	LATCH1
13	WD_TRIG
15	OE_EXT*
17	OUTVALID
19	LATCH_IN
2,4,6,8,10 12,14,16,20	GND

J4

Pin#	SPI Signals
19	SCK
17	SCS#
5	SO
3	SI

J4

Pin[13,7]	SPI Modes
00	Mode 0
01	Mode 1
10	Mode 2
11	Mode 3

Open=1, Close=0

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Description: LAN9254 Evaluation Board		
Page Title: Power supply & I2C		
Project Name: EVB-LAN9254-DIGIO		PN: EVB-LAN9254-DIGIO
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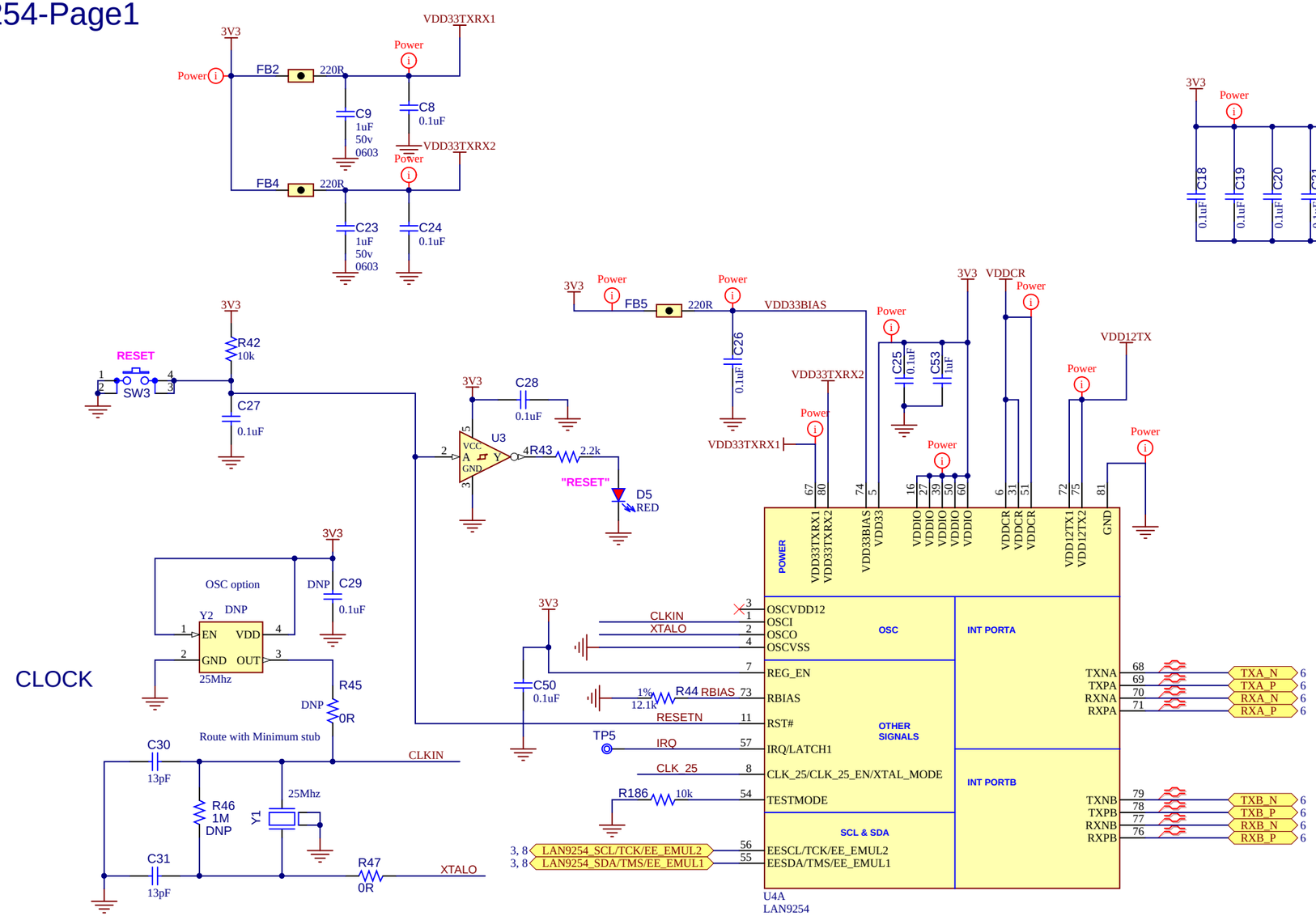
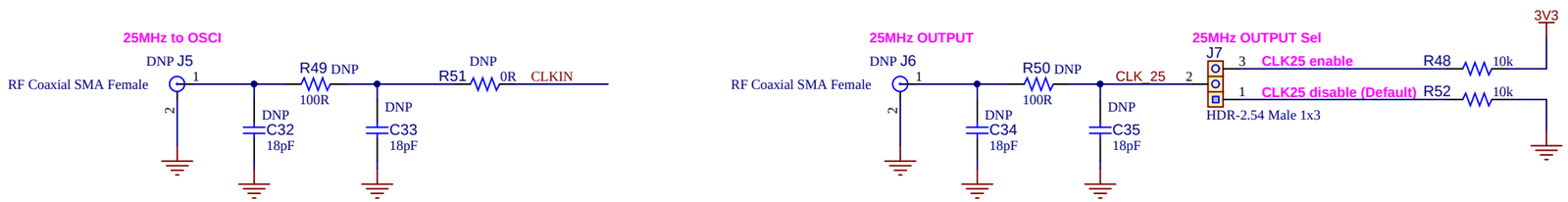
LAN9254-Page1



Only external 25MHz crystal is assembled



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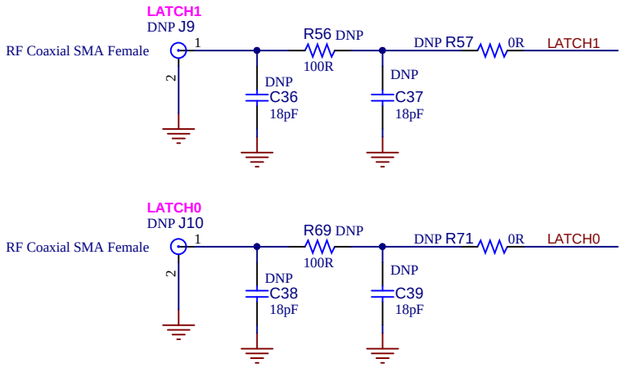
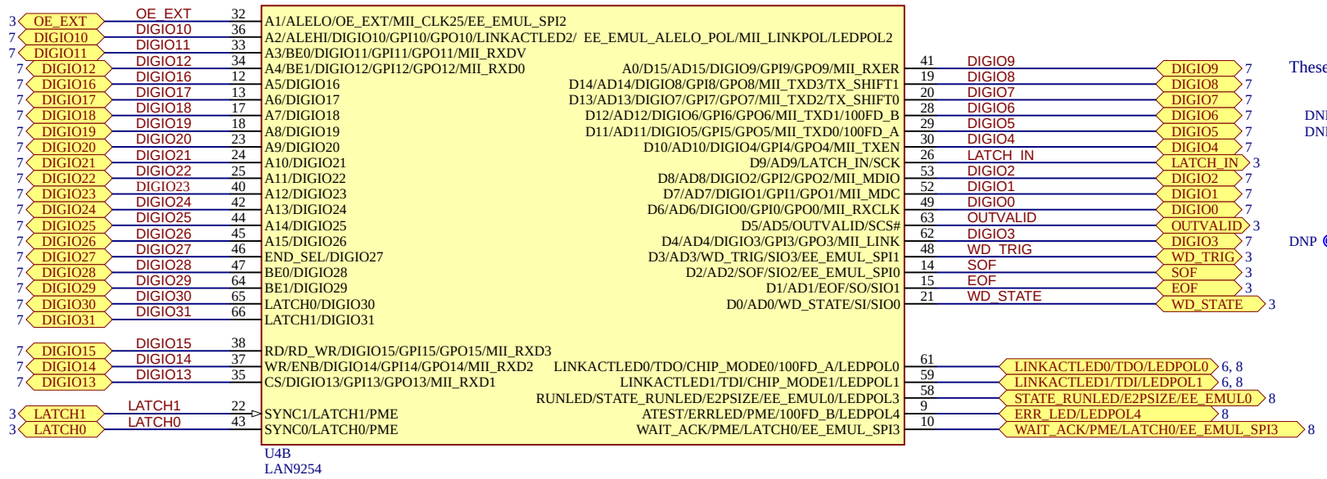
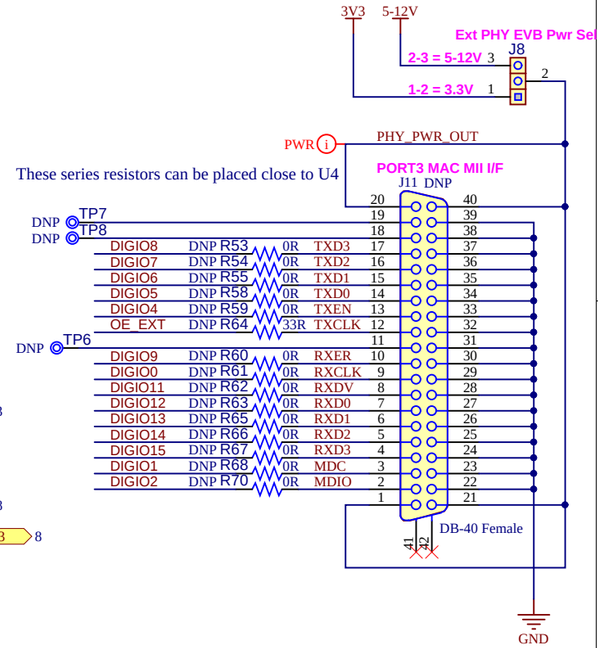
Description: LAN9254 Evaluation Board			
Page Title: LAN9254-Page1			
Project Name: EVB-LAN9254-DIGIO		PN: EVB-LAN9254-DIGIO	
Size: B	Date: 5/19/2020	Designer: Xuelu Li	Sheet 4 of 8 Rev A0

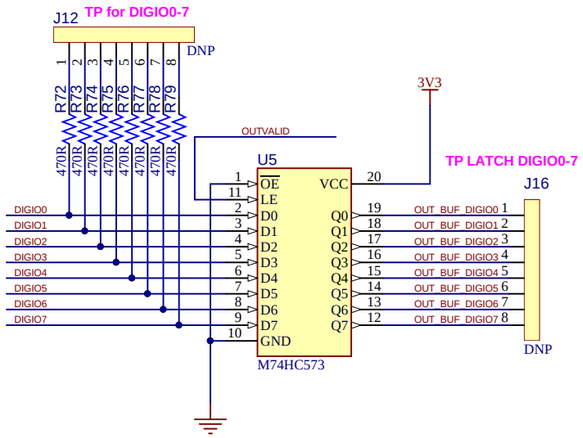
LAN9254-Page2, buffer Latch and MII Connector

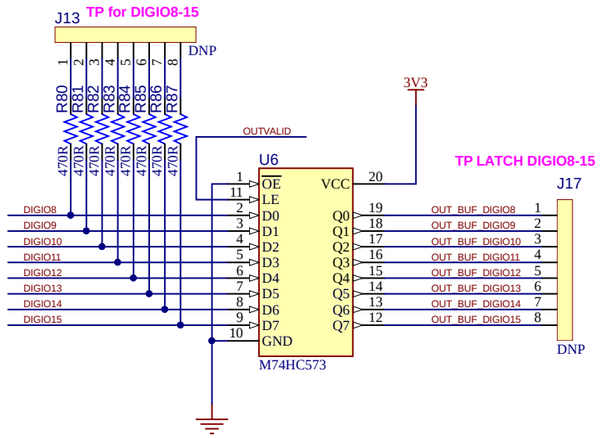


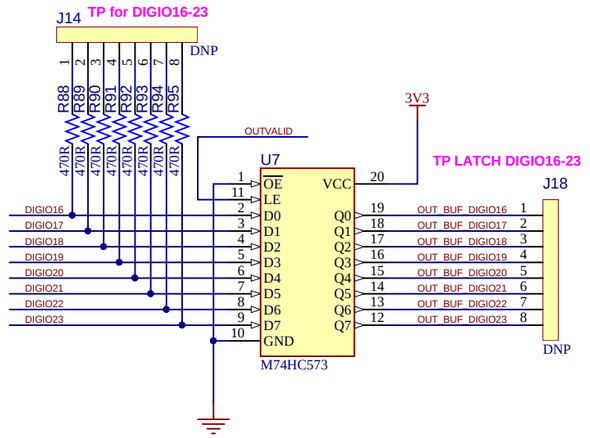


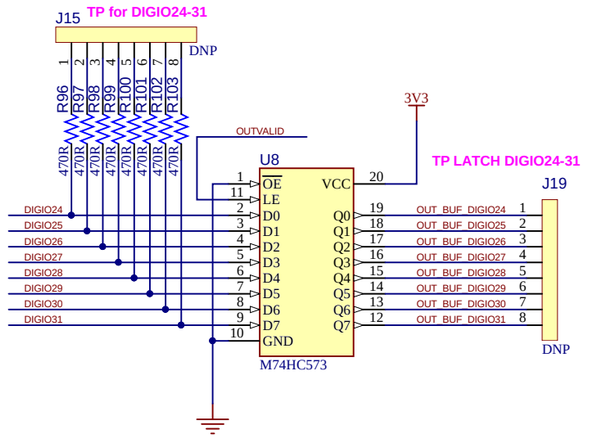


DIGITAL I/O BUFFER



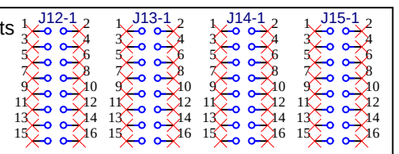






Substitute BOM parts

HDR-2.54 Male 2x8



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Description: LAN9254 Evaluation Board	
Page Title: LAN9254-Page2	
Project Name: EVB-LAN9254-DIGIO	PN: EVB-LAN9254-DIGIO
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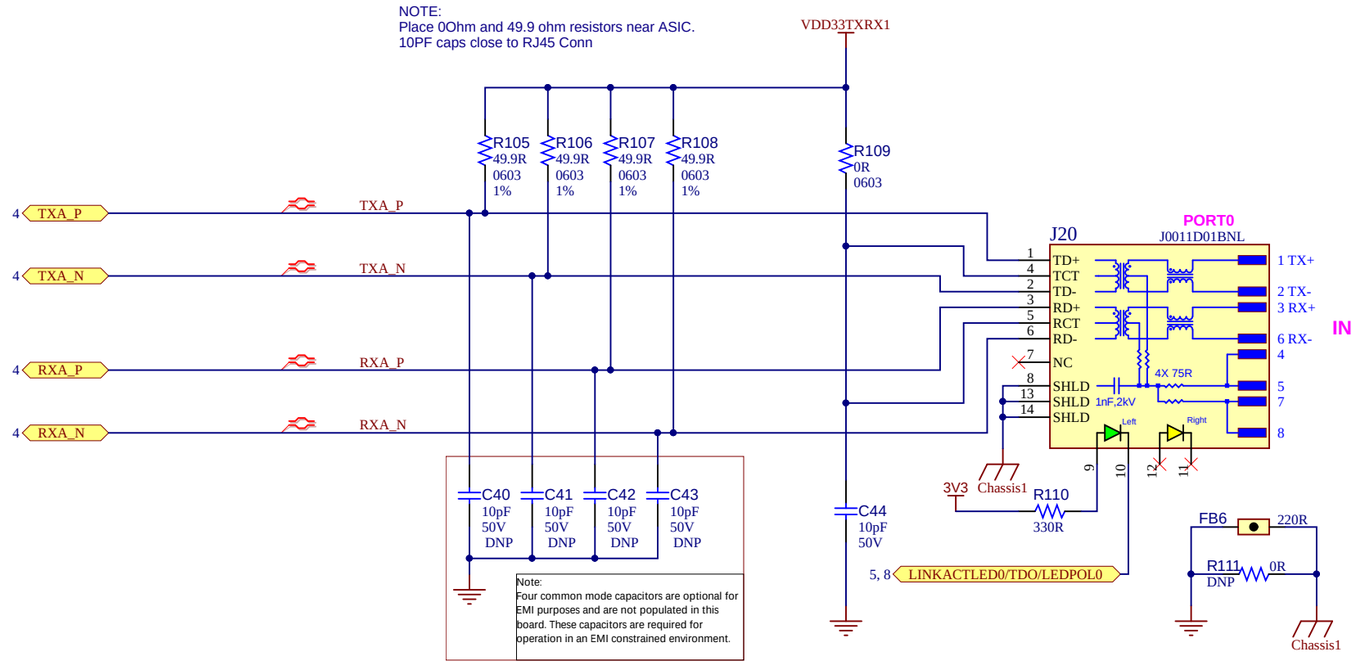
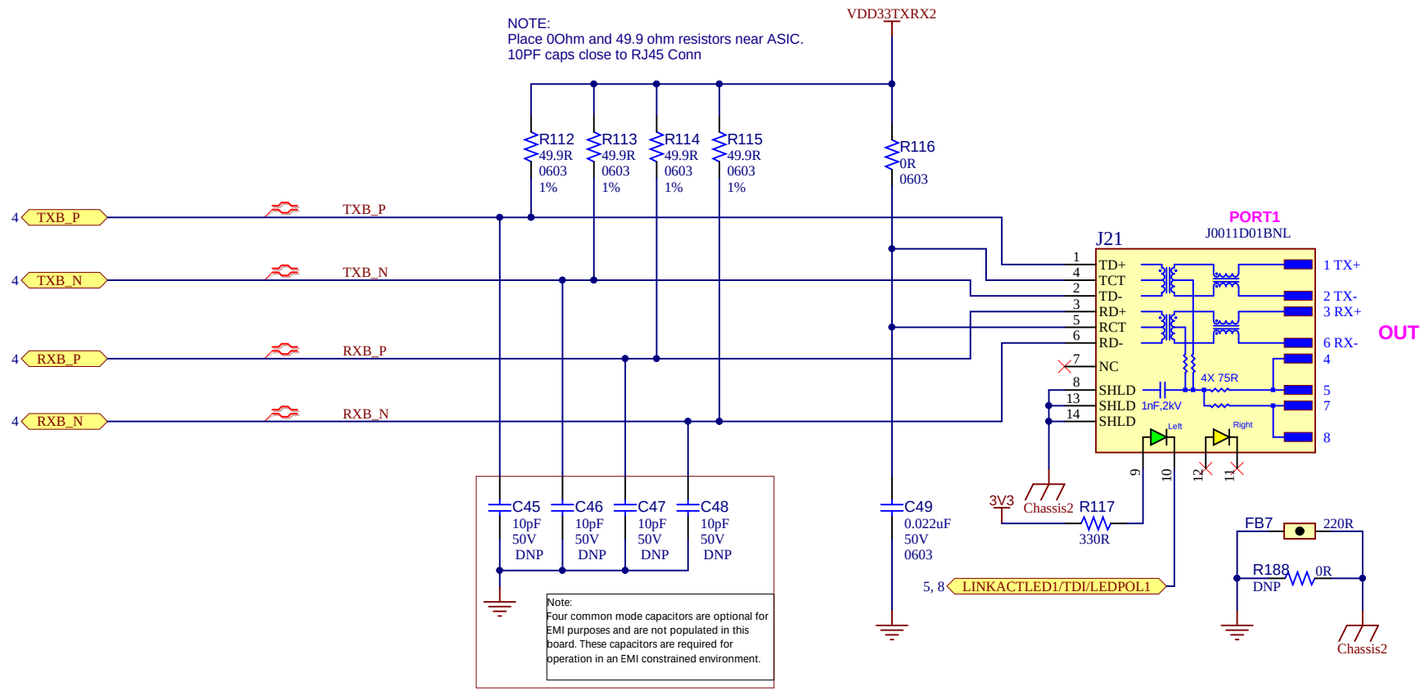
Port0 (IN)



Port1 (OUT)



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Description: **LAN9254 Evaluation Board**			
Page Title: **Copper Ports**			
Project Name: **EVB-LAN9254-DIGIO**		PN: **EVB-LAN9254-DIGIO**	
Size: B	Date: **5/12/2020**	Designer: **Xuelu Li**	Sheet 6 of 8 | Rev A0

Digital INPUTS

I/P O/P

1-2 side short of J22-J25 = Input Mode (Default)
2-3 side short of J22-J25 = Output Mode

IN/OUT Sel DIGIO0-7

J22 HDR-2.54 Male 3x8

DIGIO0	2	1	IN_DIGIO0		
		3	OUT_DIGIO0		
DIGIO1	5	4	IN_DIGIO1		
		6	OUT_DIGIO1		
DIGIO2	8	7	IN_DIGIO2		
		9	OUT_DIGIO2		
DIGIO3	11	10	IN_DIGIO3		
		12	OUT_DIGIO3		
DIGIO4	14	13	IN_DIGIO4		
		15	OUT_DIGIO4		
DIGIO5	17	16	IN_DIGIO5		
		18	OUT_DIGIO5		
DIGIO6	20	19	IN_DIGIO6		
		21	OUT_DIGIO6		
DIGIO7	23	22	IN_DIGIO7		
		24	OUT_DIGIO7		

JP10 J22 16-17 — Shunt 2.54mm 1x2 Handle
JP14 J22 19-20 — Shunt 2.54mm 1x2 Handle
JP17 J22 22-23 — Shunt 2.54mm 1x2 Handle
JP6 J22 1-2 — Shunt 2.54mm 1x2 Handle
JP8 J22 4-5 — Shunt 2.54mm 1x2 Handle
JP11 J22 7-8 — Shunt 2.54mm 1x2 Handle
JP13 J22 10-11 — Shunt 2.54mm 1x2 Handle
JP16 J22 13-14 — Shunt 2.54mm 1x2 Handle

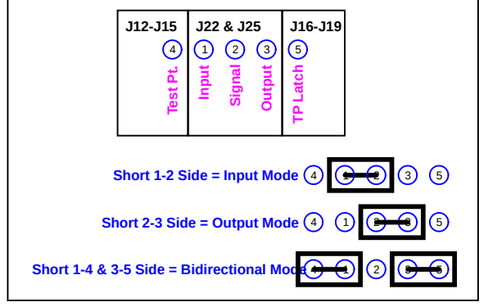
IN/OUT Sel DIGIO8-15

J23 HDR-2.54 Male 3x8

DIGIO8	2	1	IN_DIGIO8		
		3	OUT_DIGIO8		
DIGIO9	5	4	IN_DIGIO9		
		6	OUT_DIGIO9		
DIGIO10	8	7	IN_DIGIO10		
		9	OUT_DIGIO10		
DIGIO11	11	10	IN_DIGIO11		
		12	OUT_DIGIO11		
DIGIO12	14	13	IN_DIGIO12		
		15	OUT_DIGIO12		
DIGIO13	17	16	IN_DIGIO13		
		18	OUT_DIGIO13		
DIGIO14	20	19	IN_DIGIO14		
		21	OUT_DIGIO14		
DIGIO15	23	22	IN_DIGIO15		
		24	OUT_DIGIO15		

JP24 J23 16-17 — Shunt 2.54mm 1x2 Handle
JP27 J23 19-20 — Shunt 2.54mm 1x2 Handle
JP30 J23 22-23 — Shunt 2.54mm 1x2 Handle
JP20 J23 1-2 — Shunt 2.54mm 1x2 Handle
JP22 J23 4-5 — Shunt 2.54mm 1x2 Handle
JP25 J23 7-8 — Shunt 2.54mm 1x2 Handle
JP28 J23 10-11 — Shunt 2.54mm 1x2 Handle
JP31 J23 13-14 — Shunt 2.54mm 1x2 Handle

DIG-IO JUMPER OPTIONS and PCB PLACEMENT REFERENCE



* = Default jumper for output mode plus a spare jumper

IN/OUT Sel DIGIO16-23

J24 HDR-2.54 Male 3x8

DIGIO16	2	1	IN_DIGIO16		
		3	OUT_DIGIO16		
DIGIO17	5	4	IN_DIGIO17		
		6	OUT_DIGIO17		
DIGIO18	8	7	IN_DIGIO18		
		9	OUT_DIGIO18		
DIGIO19	11	10	IN_DIGIO19		
		12	OUT_DIGIO19		
DIGIO20	14	13	IN_DIGIO20		
		15	OUT_DIGIO20		
DIGIO21	17	16	IN_DIGIO21		
		18	OUT_DIGIO21		
DIGIO22	20	19	IN_DIGIO22		
		21	OUT_DIGIO22		
DIGIO23	23	22	IN_DIGIO23		
		24	OUT_DIGIO23		

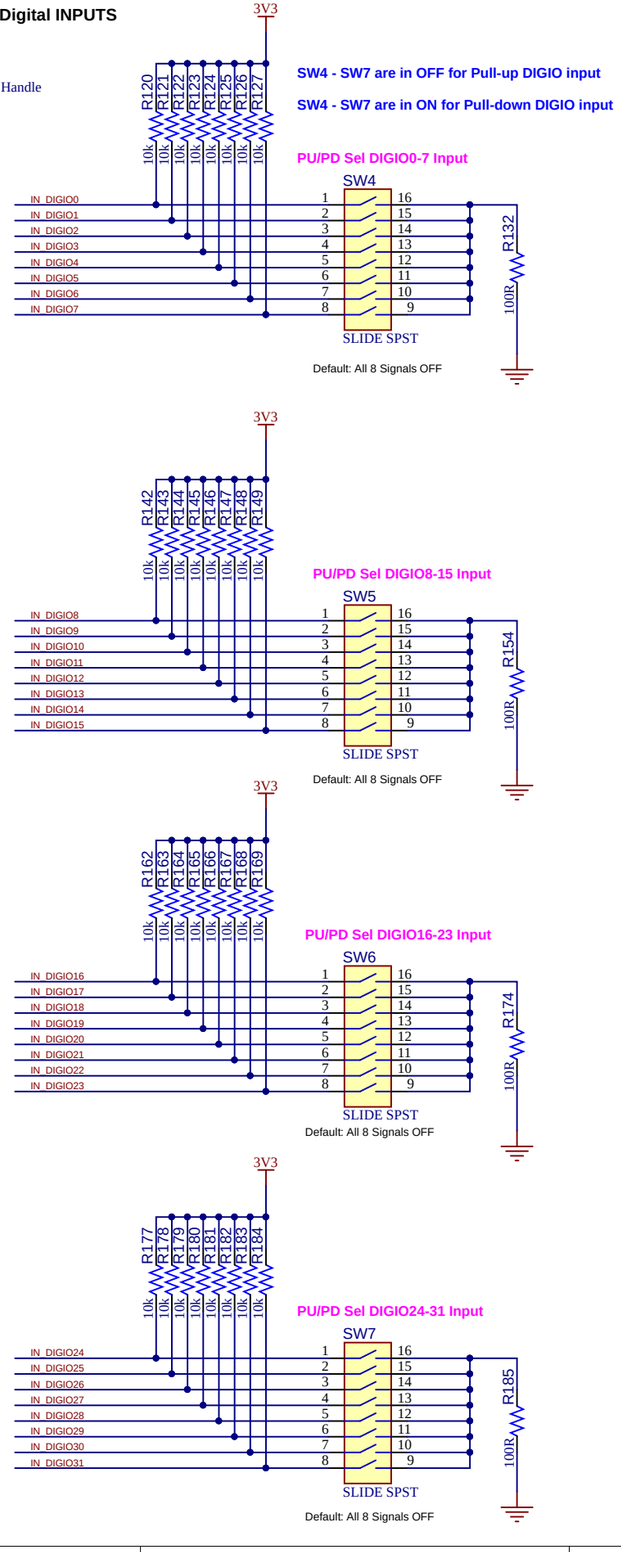
JP3 J24 1-2 — Shunt 2.54mm 1x2 Handle
JP4 J24 4-5 — Shunt 2.54mm 1x2 Handle
JP5 J24 7-8 — Shunt 2.54mm 1x2 Handle
JP7 J24 10-11 — Shunt 2.54mm 1x2 Handle
JP9 J24 13-14 — Shunt 2.54mm 1x2 Handle
JP12 J24 16-17 — Shunt 2.54mm 1x2 Handle
JP15 J24 19-20 — Shunt 2.54mm 1x2 Handle
JP18 J24 22-23 — Shunt 2.54mm 1x2 Handle
JP19 J25 2-1-2 — Shunt 2.54mm 1x2 Handle

IN/OUT Sel DIGIO24-31

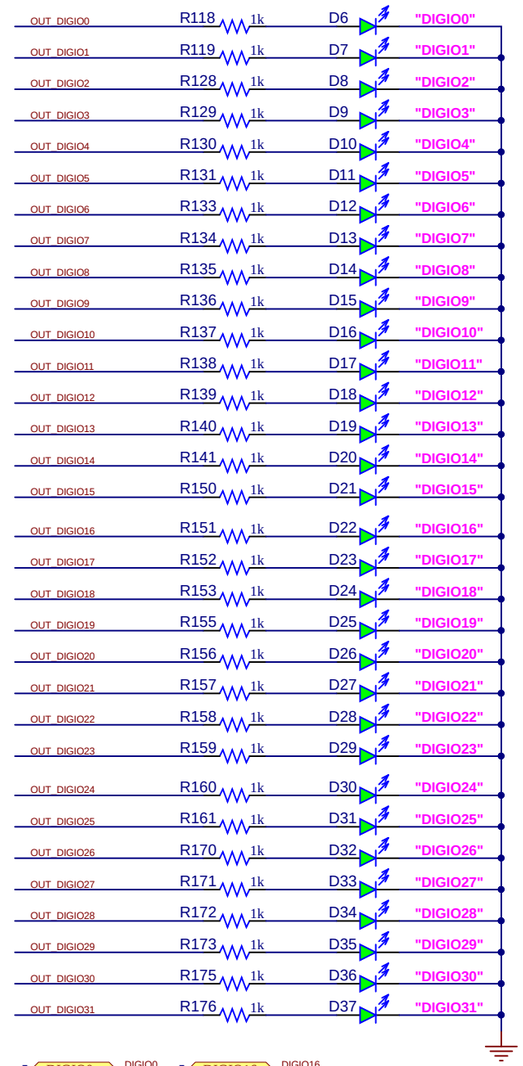
J25 HDR-2.54 Male 3x8

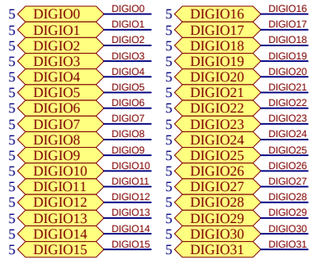
DIGIO24	2	1	IN_DIGIO24		
		3	OUT_DIGIO24		
DIGIO25	5	4	IN_DIGIO25		
		6	OUT_DIGIO25		
DIGIO26	8	7	IN_DIGIO26		
		9	OUT_DIGIO26		
DIGIO27	11	10	IN_DIGIO27		
		12	OUT_DIGIO27		
DIGIO28	14	13	IN_DIGIO28		
		15	OUT_DIGIO28		
DIGIO29	17	16	IN_DIGIO29		
		18	OUT_DIGIO29		
DIGIO30	20	19	IN_DIGIO30		
		21	OUT_DIGIO30		
DIGIO31	23	22	IN_DIGIO31		
		24	OUT_DIGIO31		

JP21 J25 4-5 — Shunt 2.54mm 1x2 Handle
JP23 J25 7-8 — Shunt 2.54mm 1x2 Handle
JP26 J25 10-11 — Shunt 2.54mm 1x2 Handle
JP29 J25 13-14 — Shunt 2.54mm 1x2 Handle
JP32 J25 16-17 — Shunt 2.54mm 1x2 Handle
JP33 J25 22-23 — Shunt 2.54mm 1x2 Handle
JP34 J25 19-20 — Shunt 2.54mm 1x2 Handle



Digital OUTPUTS





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Description: LAN9254 Evaluation Board			
Page Title: Digital IO			
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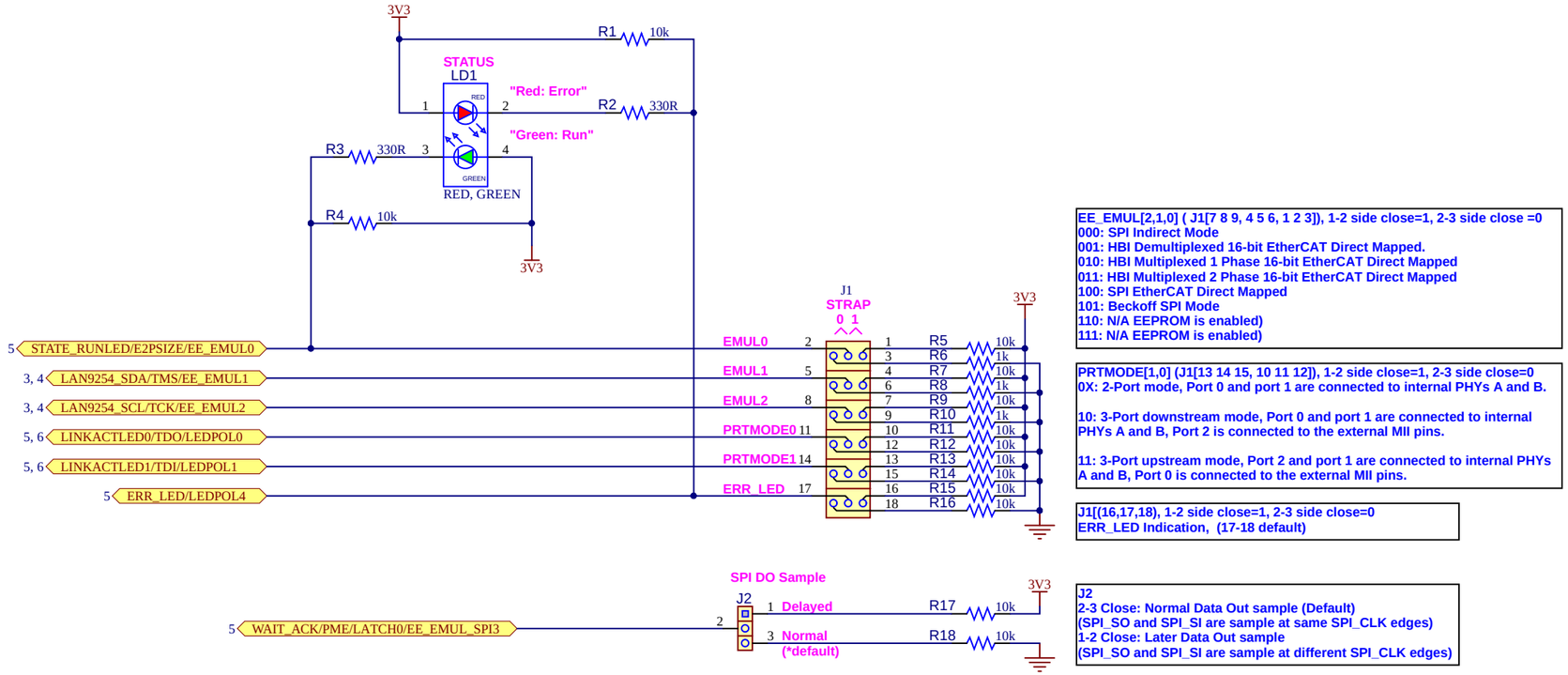
Size: B	Date: 6/22/2020	Designer: Xuelu Li	Sheet 7 of 8 Rev A0

LED and Strapping



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Description: LAN9254 Evaluation Board			
Page Title: LEDs & Strapping			
Project Name: EVB-LAN9254-DIGIO		PN: EVB-LAN9254-DIGIO	
Size: B	Date: 6/22/2020	Designer: Xuelu Li	Sheet 8 of 8 Rev A0