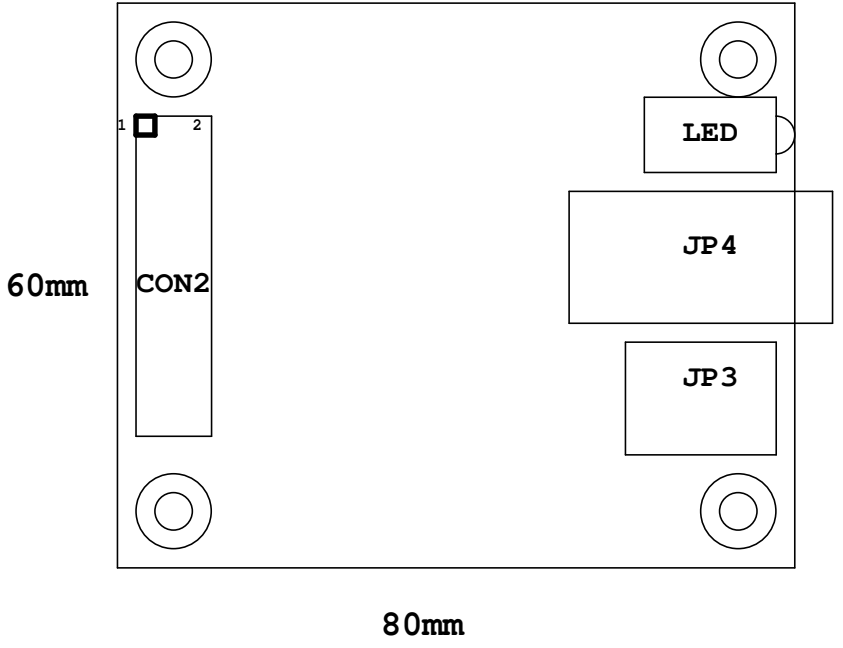
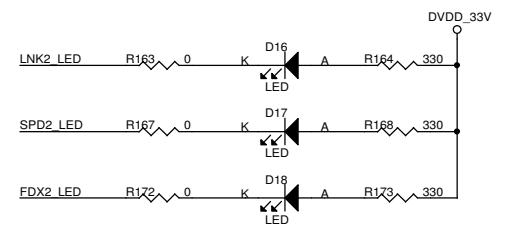


POWER FROM MII
 +5V IN
 +3.3V OUT
 POWER
 +3.3V IN
 +1.8V OUT

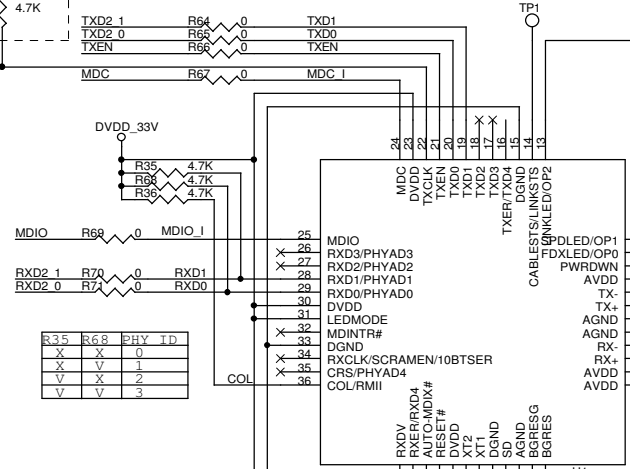


Davicom Semiconductor Inc.		
Title		DM9163 TP Demo Board (PCB_Overview)
Size	Document Number	Rev
A4	01TOP	1.0
Date:	Friday, April 11, 2014	Sheet 1 of 3

RMII 50MHZ CLOCK
OUTPUT AT TXCLK
WHEN TXCLK PULL-UP
EXIST

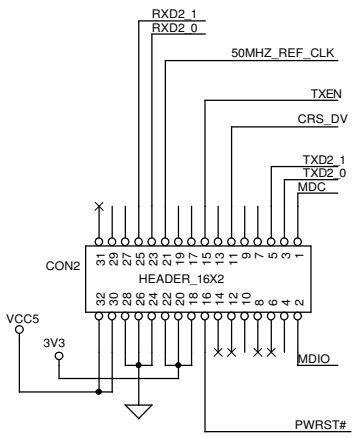


SELECT TP AND FIBER MODE:
OP0 OP1 OP2
0 = NORMAL OPERATION 1 1 1 TP MODE
1 = POWERDOWN

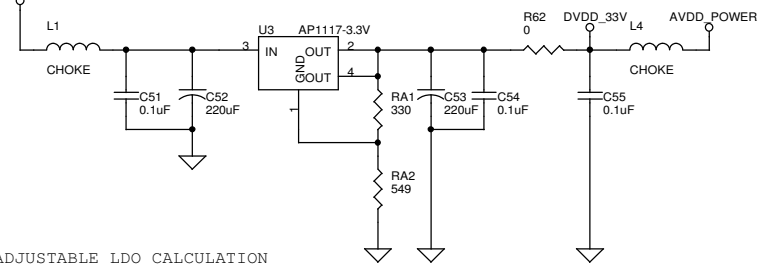


R35	R68	PHY ID
X	X	0
X	V	1
V	X	2
V	V	3

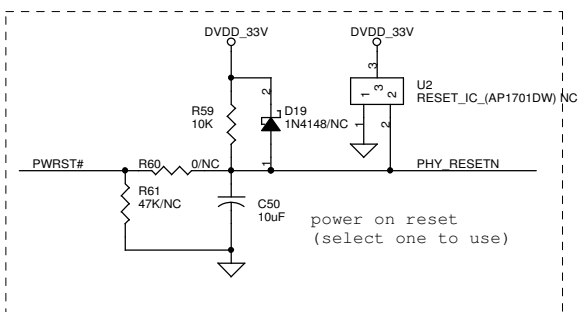
AUTO-MDIX
0 = ENABLE
1 = DISABLE



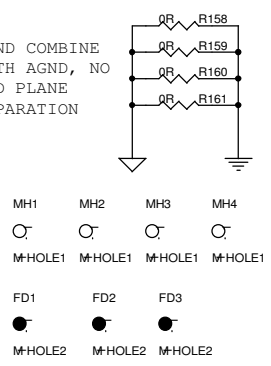
Power 5V TO 3.3V



ADJUSTABLE LDO CALCULATION
 $V_{out} = V_{ref} \times (1 + \frac{RA2}{RA1})$
 $V_{ref} = 1.25V$
 For fixed Vout LDO, RA1 = open, RA2 = 0 ohm

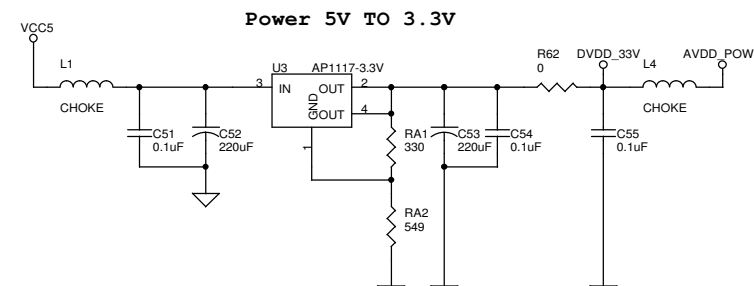
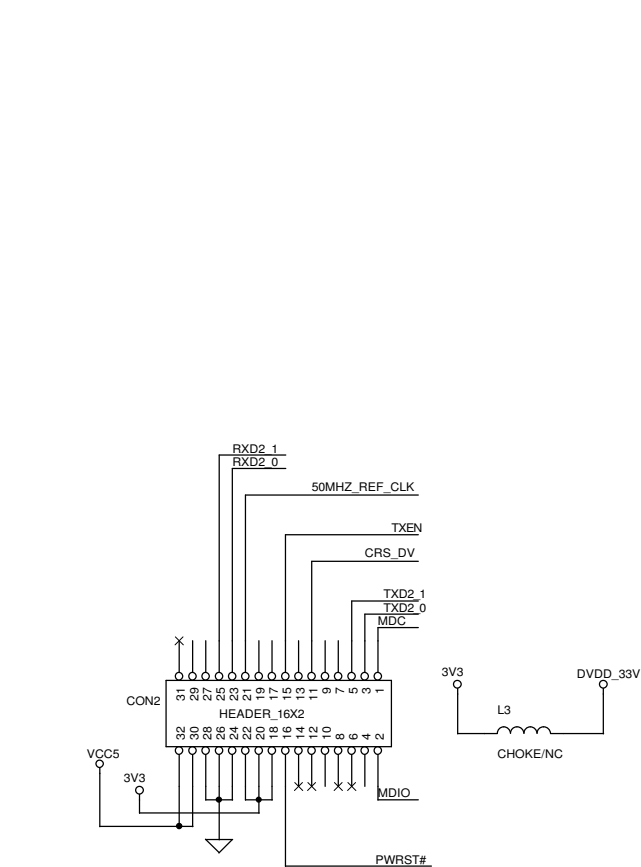


DGND COMBINE
WITH AGND, NO
GND PLANE
SEPARATION

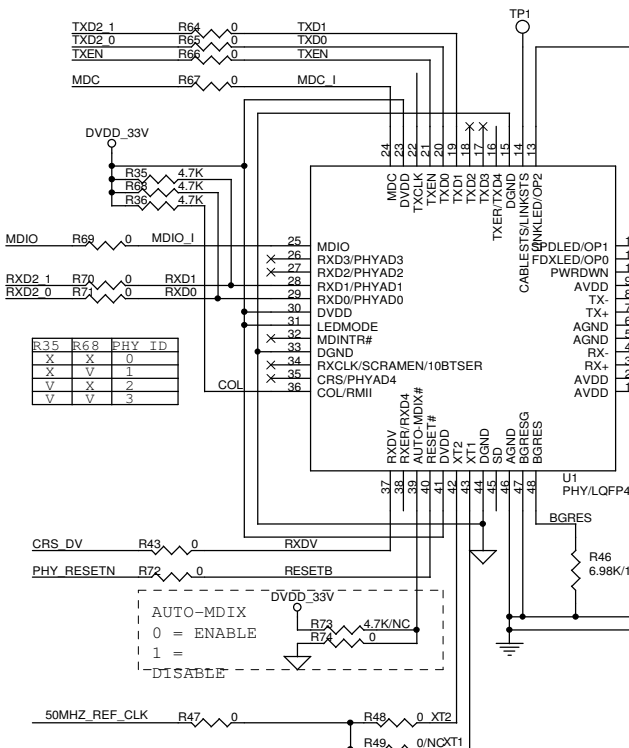


DAVICOM PHY FOR RMII + TP
25MHZ CRYSTAL WITH 50MHZ REF CLK OUT

DAVICOM SEMICONDUCTOR INC.			
Title DM9163 TP Demo Board - RMII + TP - 25MHZ CRYSTAL 50MHZ REF CLK OUT			
Size A3	Document Number 02PHY	Rev 1.0	
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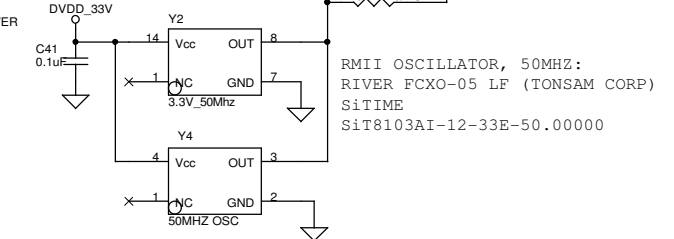
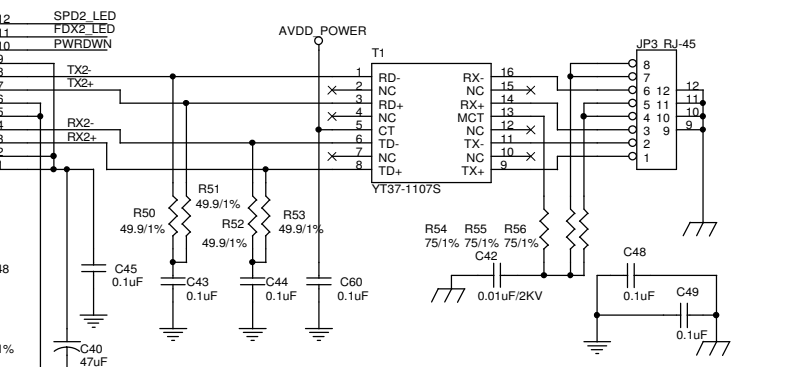
ADJUSTABLE LDO CALCULATION
 $V_{out} = V_{ref} \times (1 + RA2 / RA1)$
 $V_{ref} = 1.25V$
 For fixed V_{out} LDO, $RA1 =$ open, $RA2 = 0\text{ ohm}$



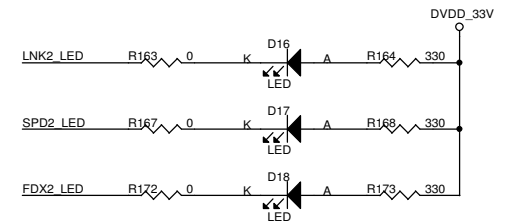
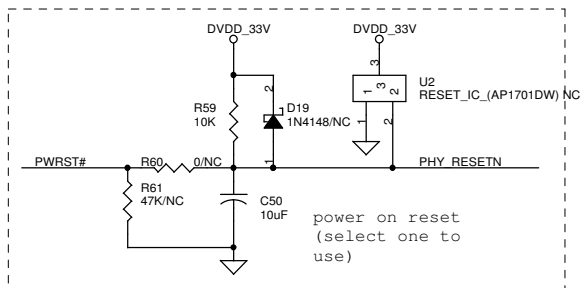
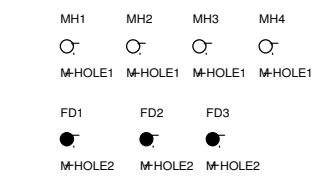
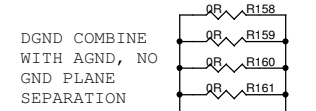
R35	R68	PHY ID
X	X	0
X	V	1
V	X	2
V	V	3

AUTO-MDIX
 0 = ENABLE
 1 = DISABLE

SELECT TP AND FIBER MODE:
 OP0 OP1 OP2
 0 = NORMAL OPERATION 1 1 1 TP MODE
 1 = POWERDOWN

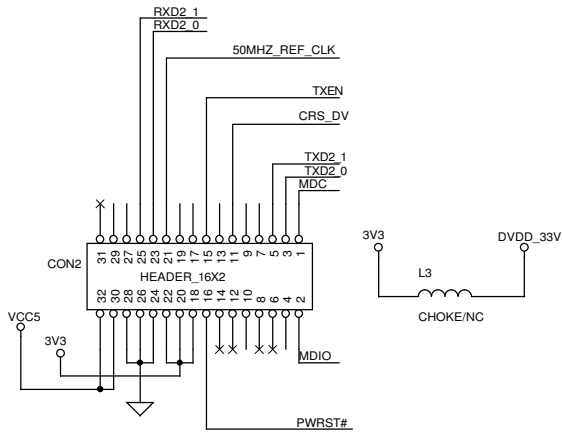
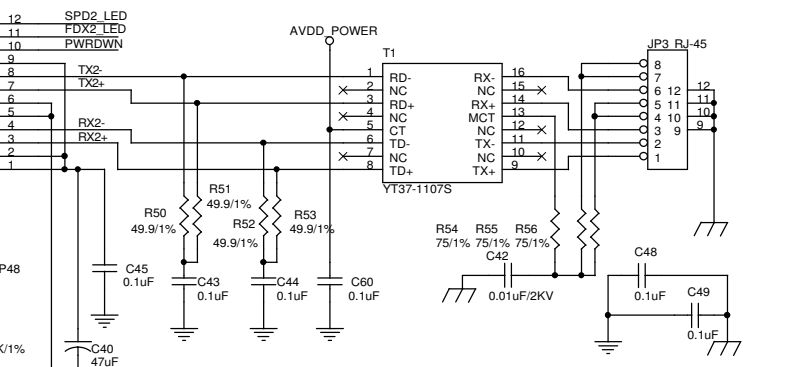
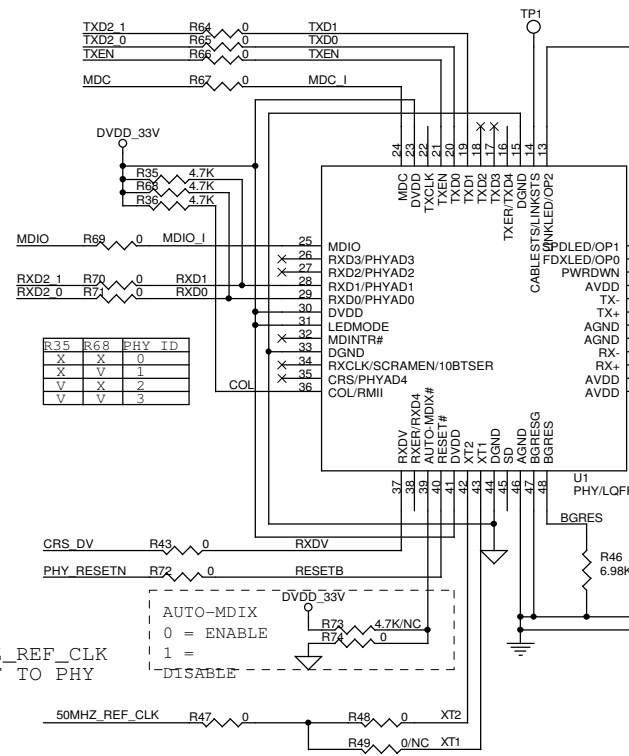
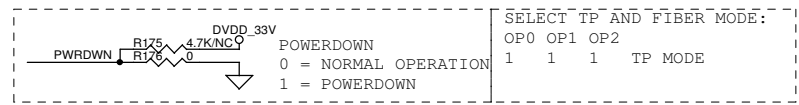
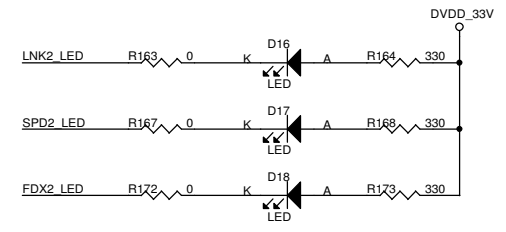


RMII OSCILLATOR, 50MHZ:
 RIVER FCXO-05 LF (TONSAM CORP)
 SiTIME
 SiT8103AI-12-33E-50.00000

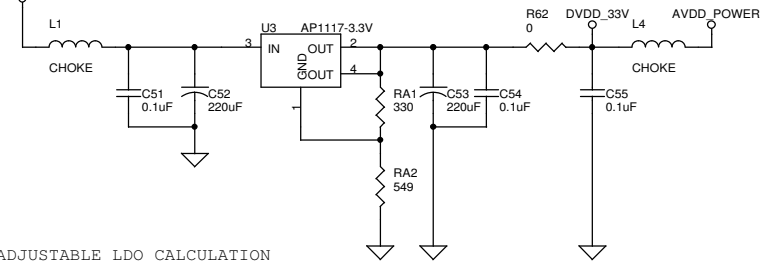


DAVICOM PHY FOR RMII + TP
 50MHZ REF CLK OSCILLATOR OUT

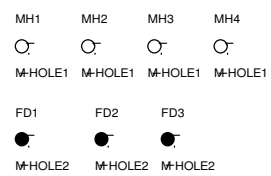
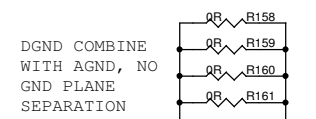
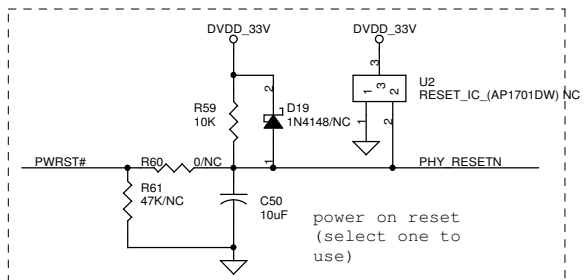
DAVICOM SEMICONDUCTOR INC.		
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Power 5V TO 3.3V



ADJUSTABLE LDO CALCULATION
 $V_{out} = V_{ref} \times (1 + RA2 / RA1)$
 $V_{ref} = 1.25V$
 For fixed V_{out} LDO, $RA1 =$ open, $RA2 = 0 \text{ ohm}$



DAVICOM PHY FOR RMII + TP
 50MHZ REF CLK IN

DAVICOM SEMICONDUCTOR INC.		
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Size	Document Number	Rev
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5

4

3

2

1

D

C

B

A

D

C

B

A

VER	DATE	ENGINEER	NOTE
1.0	04/10/2014	WILLIE NIOU	INITAL CIRCUIT CREATION

Davicom Semiconductor Inc.		
Title DM9163 TP Demo Board (History)		Rev 1.0
Size A4	Document Number HISTORY	
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1