

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

<b>Davicom Semiconductor Inc.</b>		
Title PHY Demo Board (PCB_Overview)		
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	MI/CRYSTAL	MI/OSCILLATOR	RMI/OSCILLATOR
R32	V		X
R33	V		X
R170	V		X
R34	V		X
R37	V		X
R38	V		X
R39	V		X
R40	V		X
R41	V		X
R43	V		X
R44	V		X
R45	V		X
R36	X	X	V
R47	X	X	V
R48	X	X	V
R49	X	X	V
R57	V	X	X
R58	V	X	X
R3	V	X	X
Y2/Y4	X	V	V

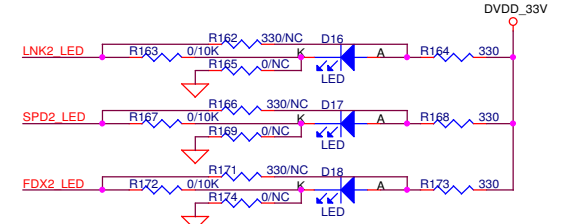
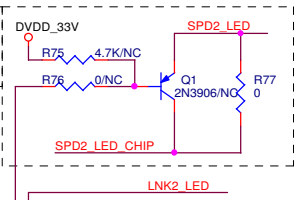
X = DO NOT POPULATE  
V = POPULATE

Y3 IS NEEDED FOR DM9162 WHEN OUTPUT 50MHZ CLOCK ON TXCLK PIN

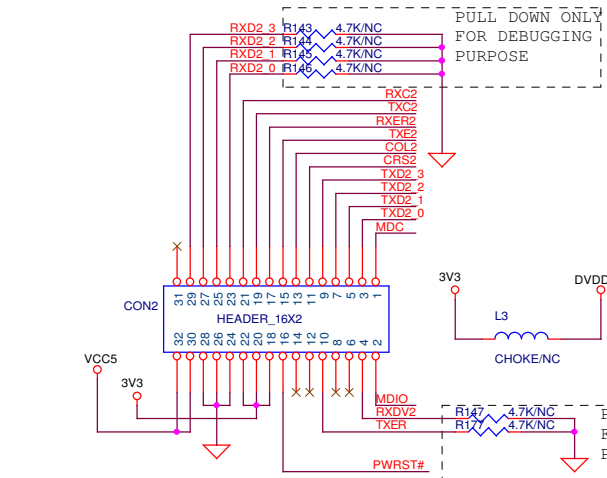
FOR DM9162, RMI 50MHZ CLOCK OUTPUT AT TXCLK WHEN TXCLK PULL-UP EXIST DO NOT USE WITH ANY OTHER PART

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

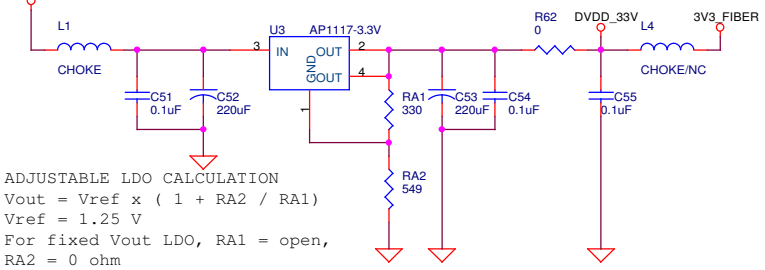
DM1961B SPEED LED MODIFICATION ONLY NECESSARY FOR DM9161B FOR OTHER PHY, DO NOT USE TRANSISTOR



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

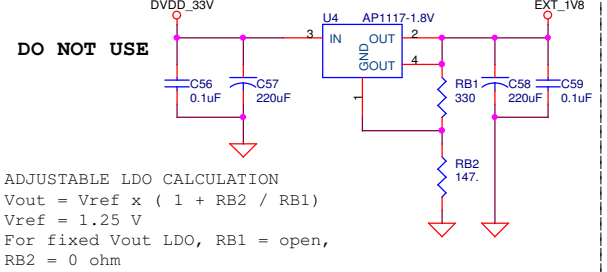


**Power 5V TO 3.3V**



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

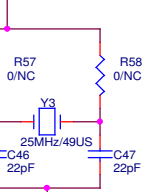
**Power 3.3V TO 1.8V**



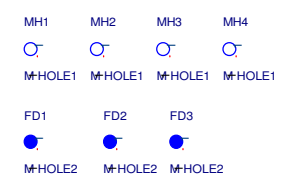
ADJUSTABLE LDO CALCULATION  
 $V_{out} = V_{ref} \times (1 + RB2 / RB1)$   
 $V_{ref} = 1.25 V$   
For fixed  $V_{out}$  LDO,  $RB1 = \text{open}$ ,  
 $RB2 = 0 \text{ ohm}$

AUTO-MDIX  
0 = ENABLE  
1 = DISABLE

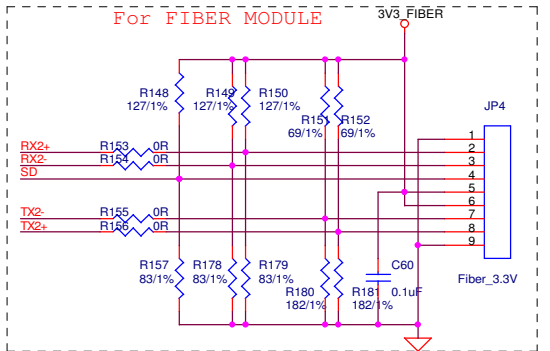
RMI OSCILLATOR, 50MHZ:  
RIVER FCXO-05 LF (TONSAM CORP)  
SiTIME SiT8103AI-12-33E-50.00000



DGND COMBINE WITH AGND, NO GND PLANE SEPARATION



Note: The contact windows of transformer YT37-1107S is list as below:  
YuTai electronics Co.,LTD  
TEL:0086-574-63620701,63621610  
EMAIL:nico\_yu@yeah.net  
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DAVICOM SEMICONDUCTOR INC.			
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VER	DATE	ENGINEER	NOTE
1.0	12/12/2007	WILLIE NIOU	INITAL CIRCUIT CREATION
1.1	4/12/2010	WILLIE NIOU	BUG FIX AND ENHANCEMENTS: 1. CON2 GND CONNECT TO BOARD GND 2. LED LAYOUT LIBRARY NOT SAME AS ACUTAL COMPONENT USED. NEED TO CHANGE DIRECTION 180 DEGREES 3. C42 NEED TO CONNECT PIN 2 AND 3 TOGETHER 4. AGND AND DGND CONNECTED 5. ADD SPEED LED CONTROL CIRCUIT, DUE TO DM9161B DESIGN 6. ADD EXTERNAL 1.8V LDO FOR INPUT TO CENTER TAP OF TRANSFORMER TO REDUCE HEAT DISSIPATION BY CHIP
	2011/7/5	ALLIANG	1: ADD Fiber Module and termination circuit 2: CN2 MII Connector change to 16*2 Pinch 2.54mm 3: Change LED Anode & Cathode 4: Add R63,R80 For TXCLK and RXCLK wire link

<b>Davicom Semiconductor Inc.</b>		
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