

LAN8810i Customer Evaluation Board

PCB Revision B
Schematic Revision 1.1

Design Details

Board: Assembly Number 6590
Chip: SMSC LAN8810i
Board Form Factor: 3.7"x7"

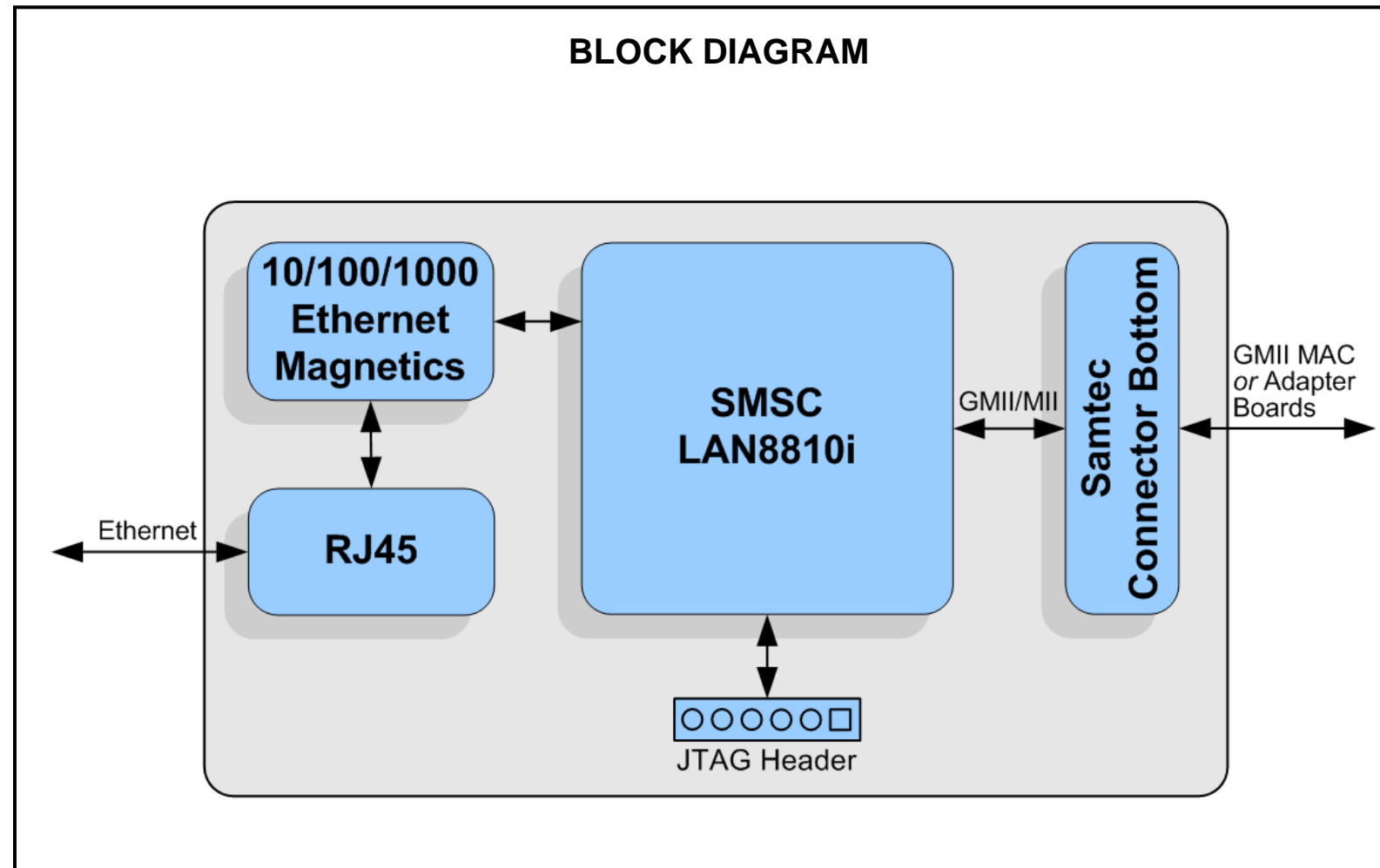
Circuit Diagrams utilizing SMSC Products Are Included As A Means Of Illustrating Typical Semiconductor Applications: Consequently Complete Information Sufficient For Construction Purposes Is Not Necessarily Given. The Information Has Been Carefully Checked And Is Believed To Be Entirely Reliable. However, No Responsibility Is Assumed For Inaccuracies. Furthermore, Such Information Does Not Convey To The Purchaser Of The Semiconductor Devices Described Any License Under The Patent Rights Of SMSC Or Others. SMSC Reserves The Right To Make Changes At Any Time In Order To Improve Design And Supply The Best Product Possible.

Important Note: Some support components shown in this design example may not be Industrial-Grade. Please be sure to check the manufacturer's datasheet(s) for detailed specifications and corresponding part numbers.

Revision History

Rev 1.1:
Initial Release

BLOCK DIAGRAM

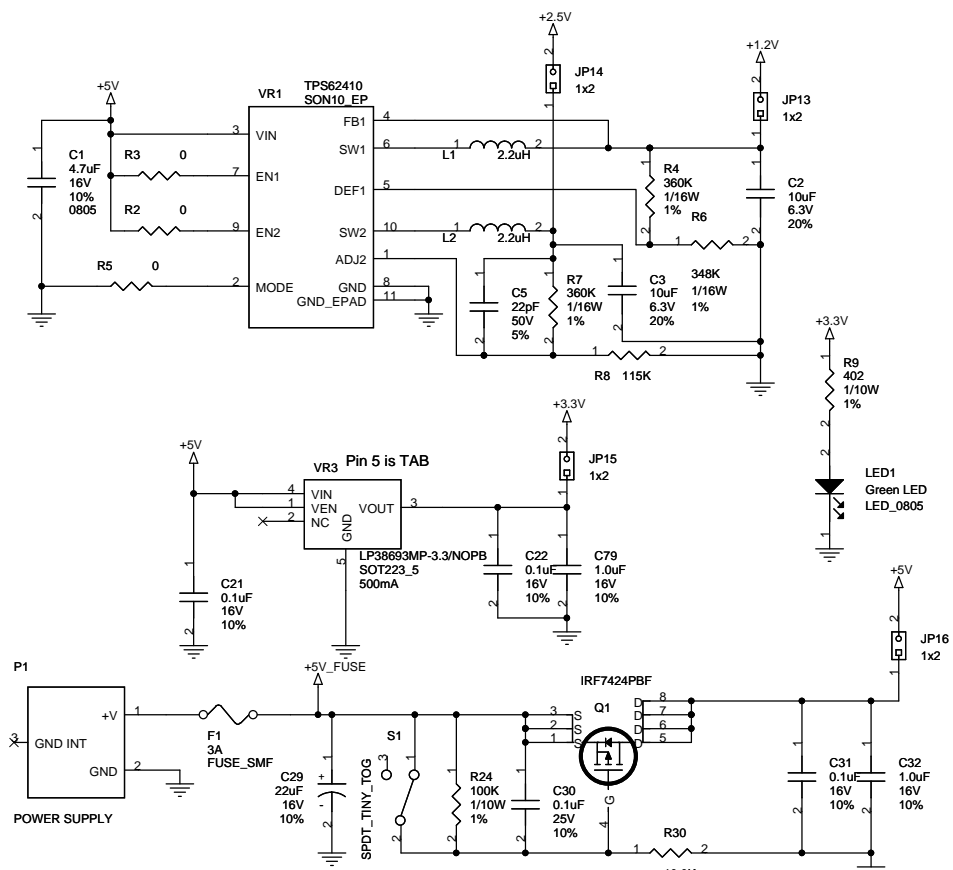


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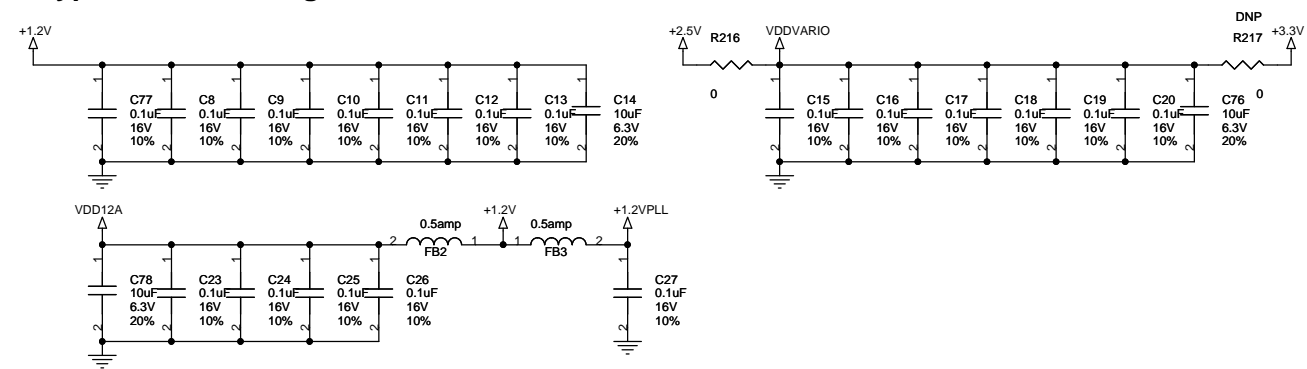


Title Page				
Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
C	R.W.	6590	B	1.1
Date:	Thursday, May 10, 2012		Sheet	1 of 7

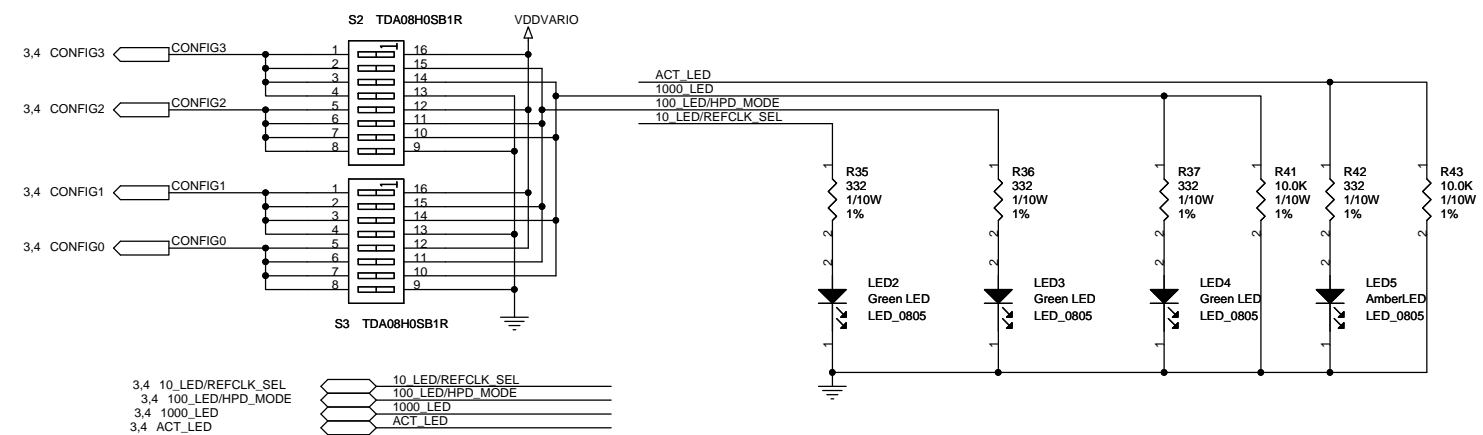
Power



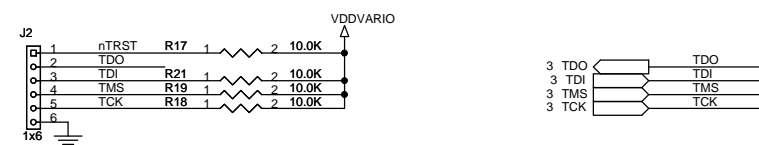
LAN8810i Bypass and Filtering



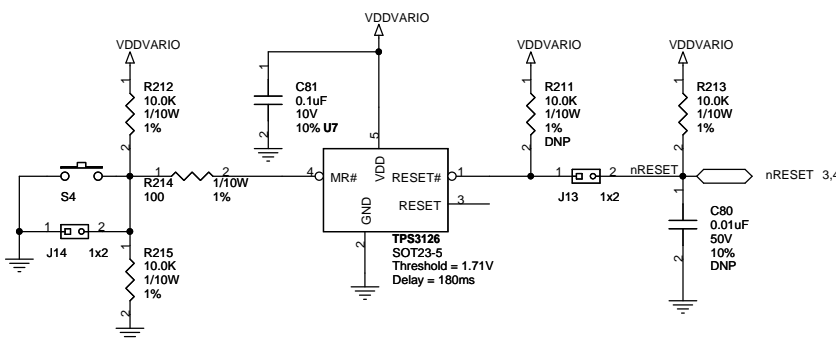
LED's and Configuration



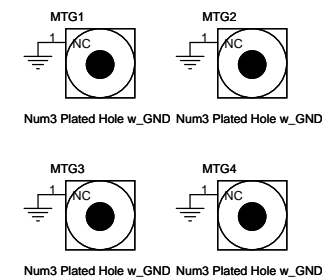
JTAG Header



Reset

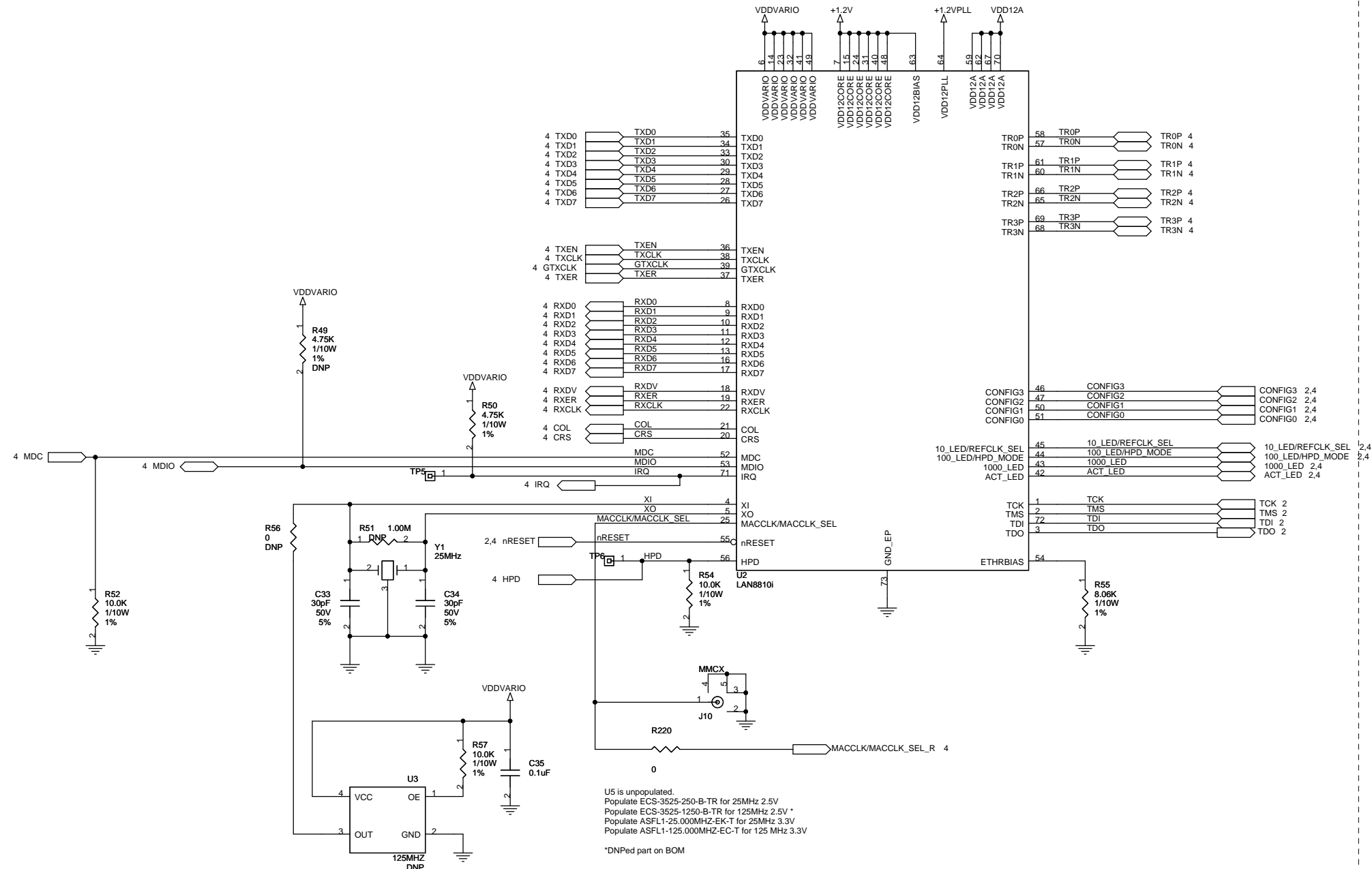


Mount Holes

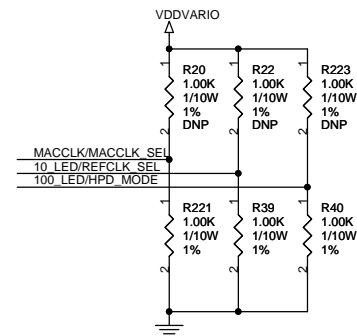


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LAN8810i and Clocking



LAN8810i Straps

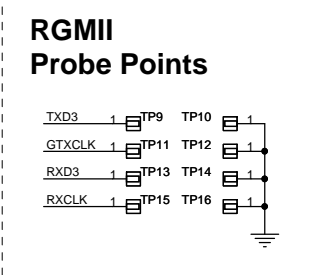
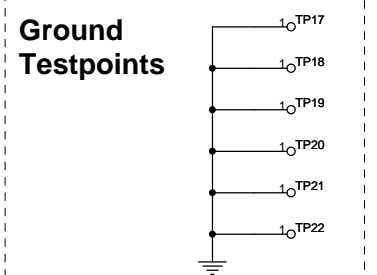
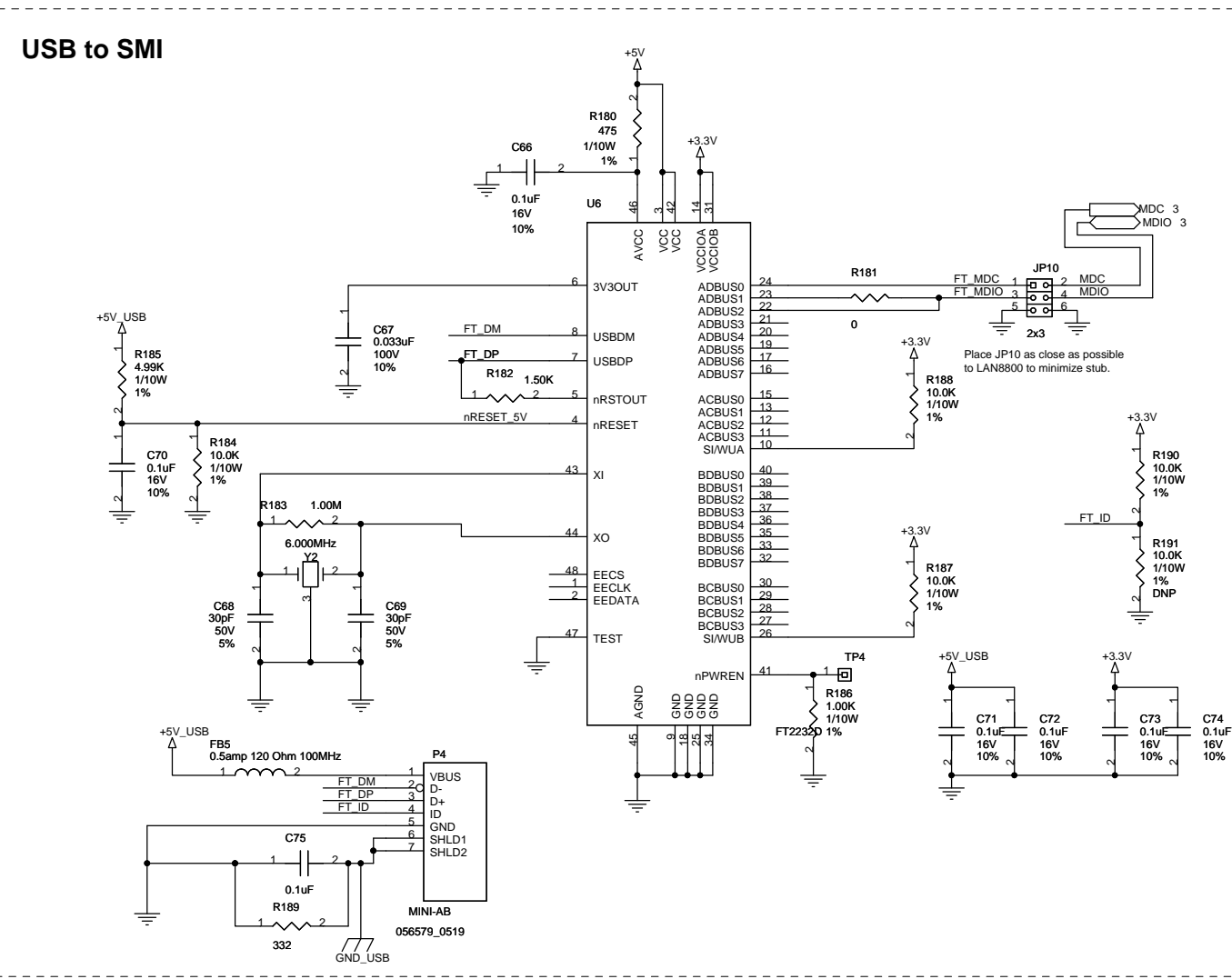
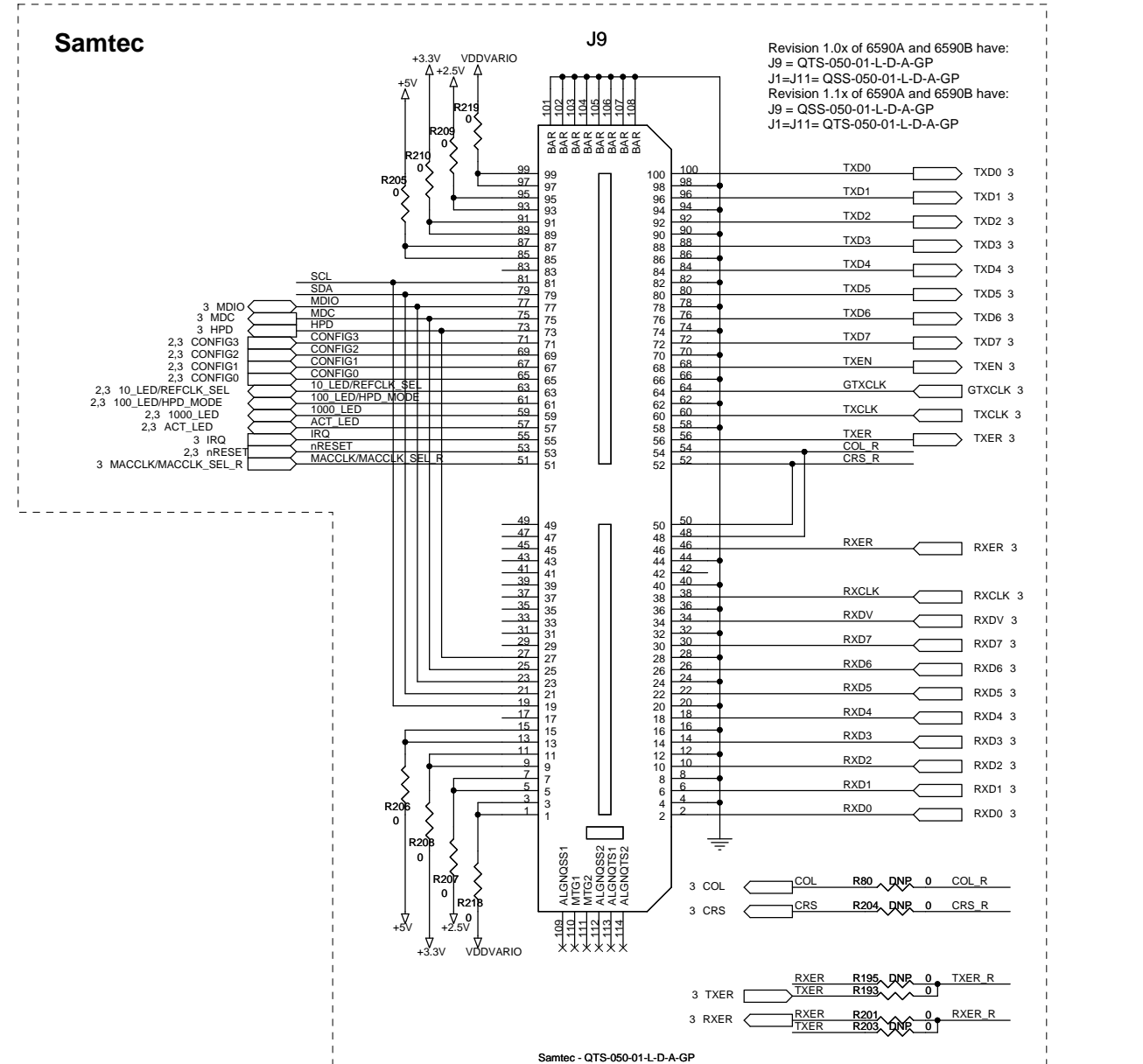
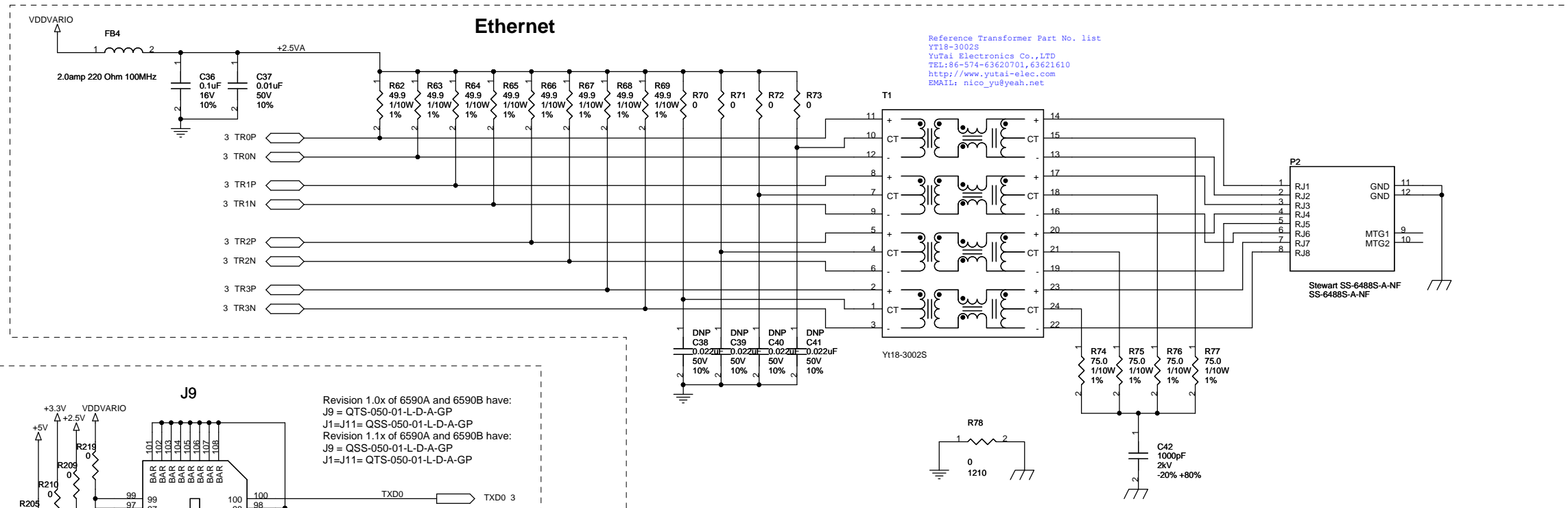


STRAP	Pulled up	Pulled down default
MACCLK_SEL	MACCLK= 25MHz	MACCLK= 125MHz
REFCLK_SEL	XI = 125MHz	XI = 25MHz
HPD_MODE	PLL not shutoff during HPD	PLL shutoff during HPD

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Title: LAN8800i

Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
C	R.W.	6590	B	1.1
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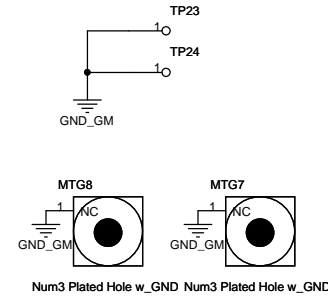
Important Note: Some support components shown in this design example may not be Industrial-Grade. Please be sure to check the manufacturer's datasheet(s) for detailed specifications and corresponding part numbers.

Title: Ethernet, Samtec, SMI

Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
C	R.W.	6590	B	1.1

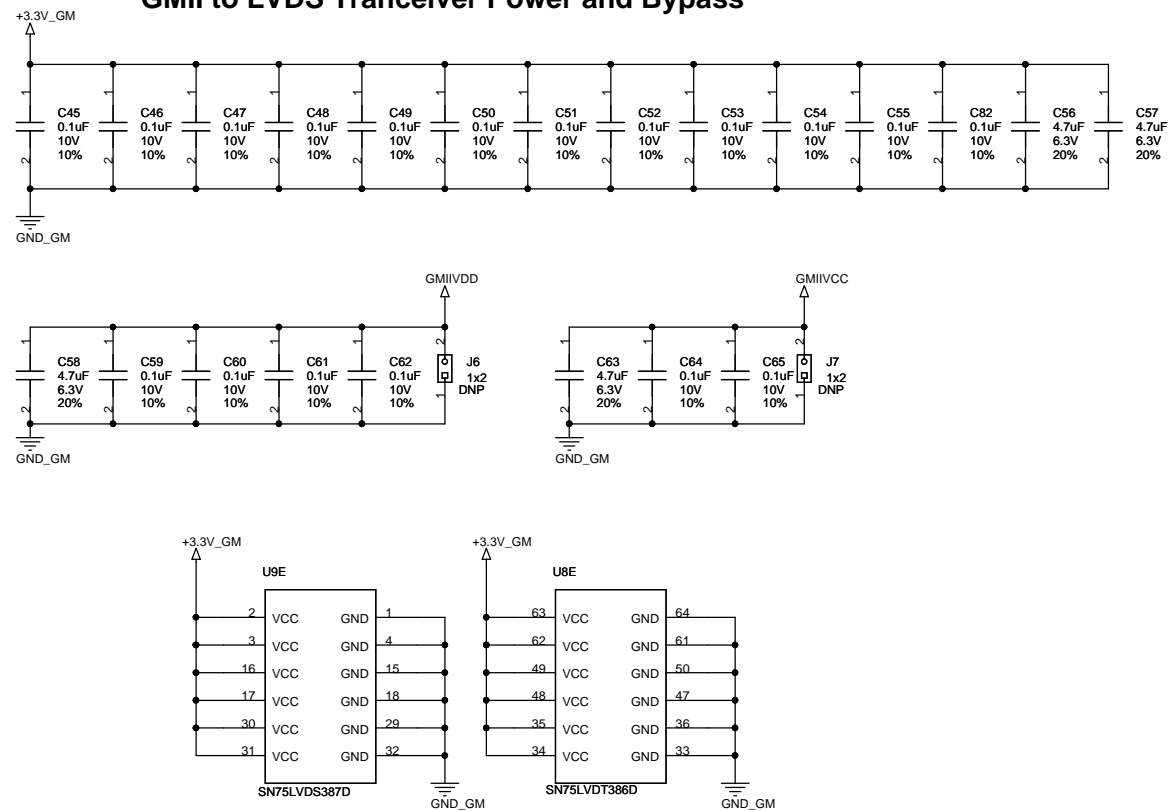
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Ground Test Points and Mounting Holes

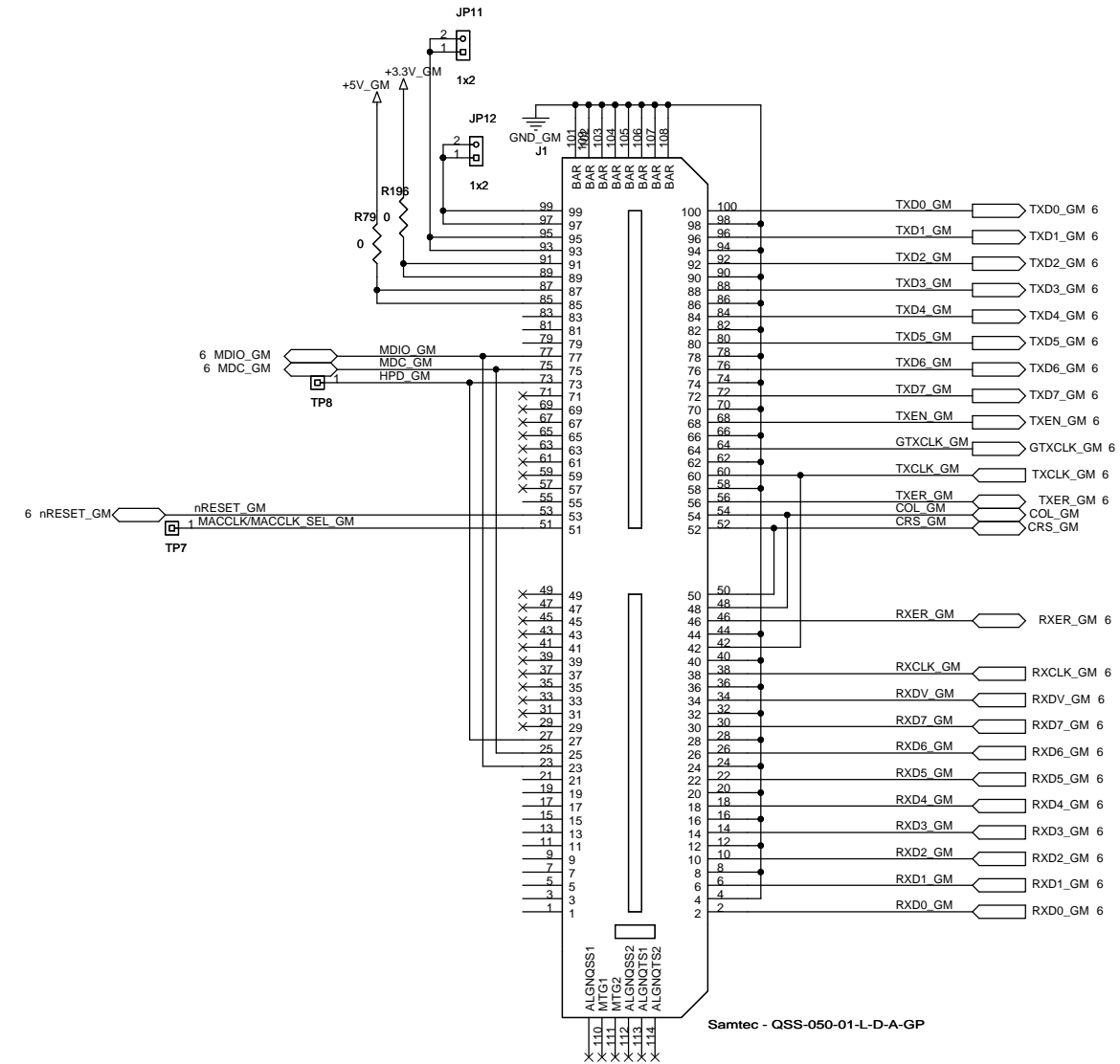


Num3 Plated Hole w_GND Num3 Plated Hole w_GND

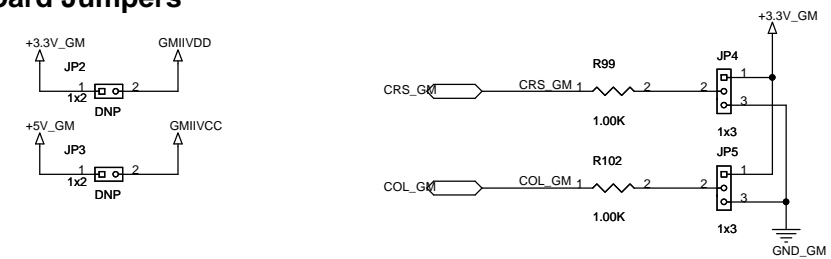
GMIIL to LVDS Transceiver Power and Bypass



Samtec for Mating with 6590 Main Board



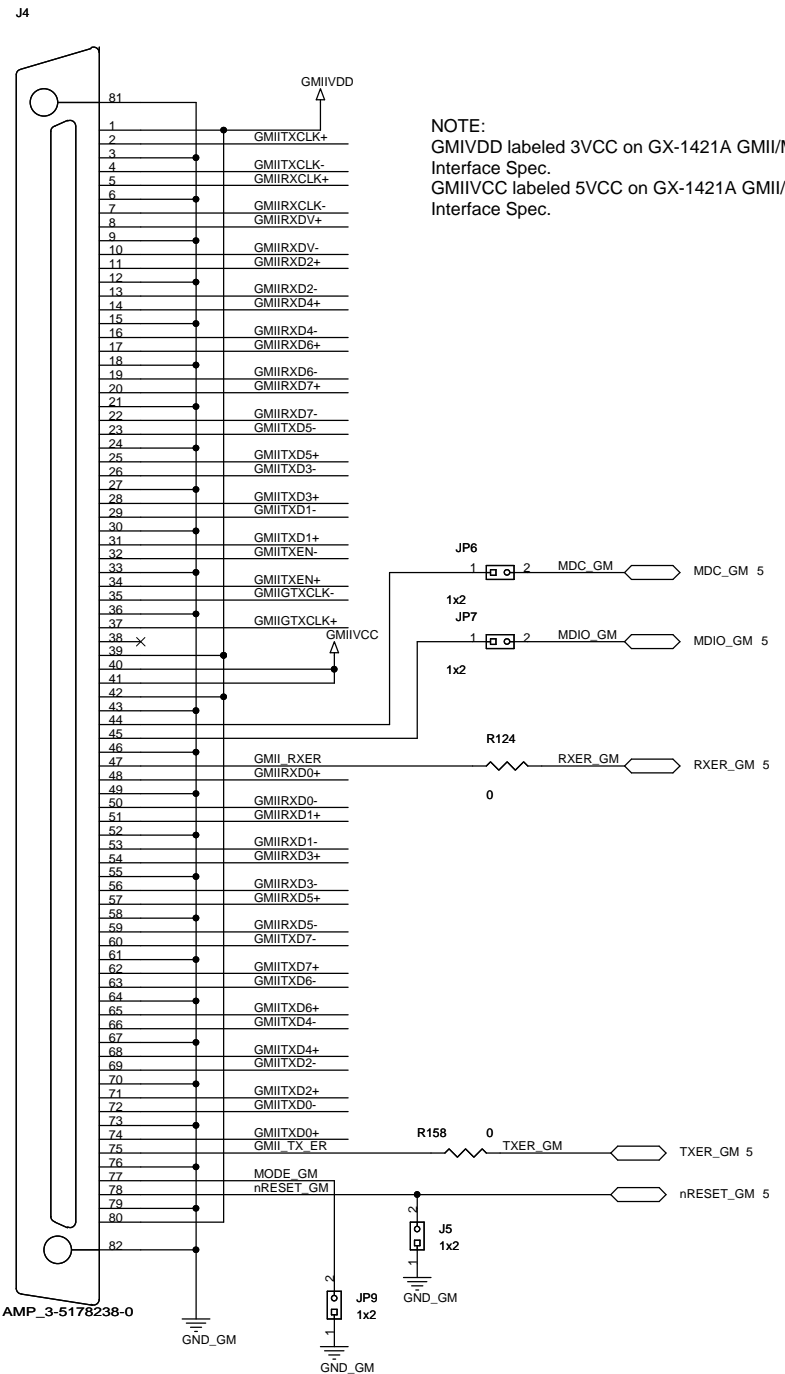
GMIIL to LVDS Breakoff Board Jumpers



Important Note: Some support components shown in this design example may not be Industrial-Grade. Please be sure to check the manufacturer's datasheet(s) for detailed specifications and corresponding part numbers.

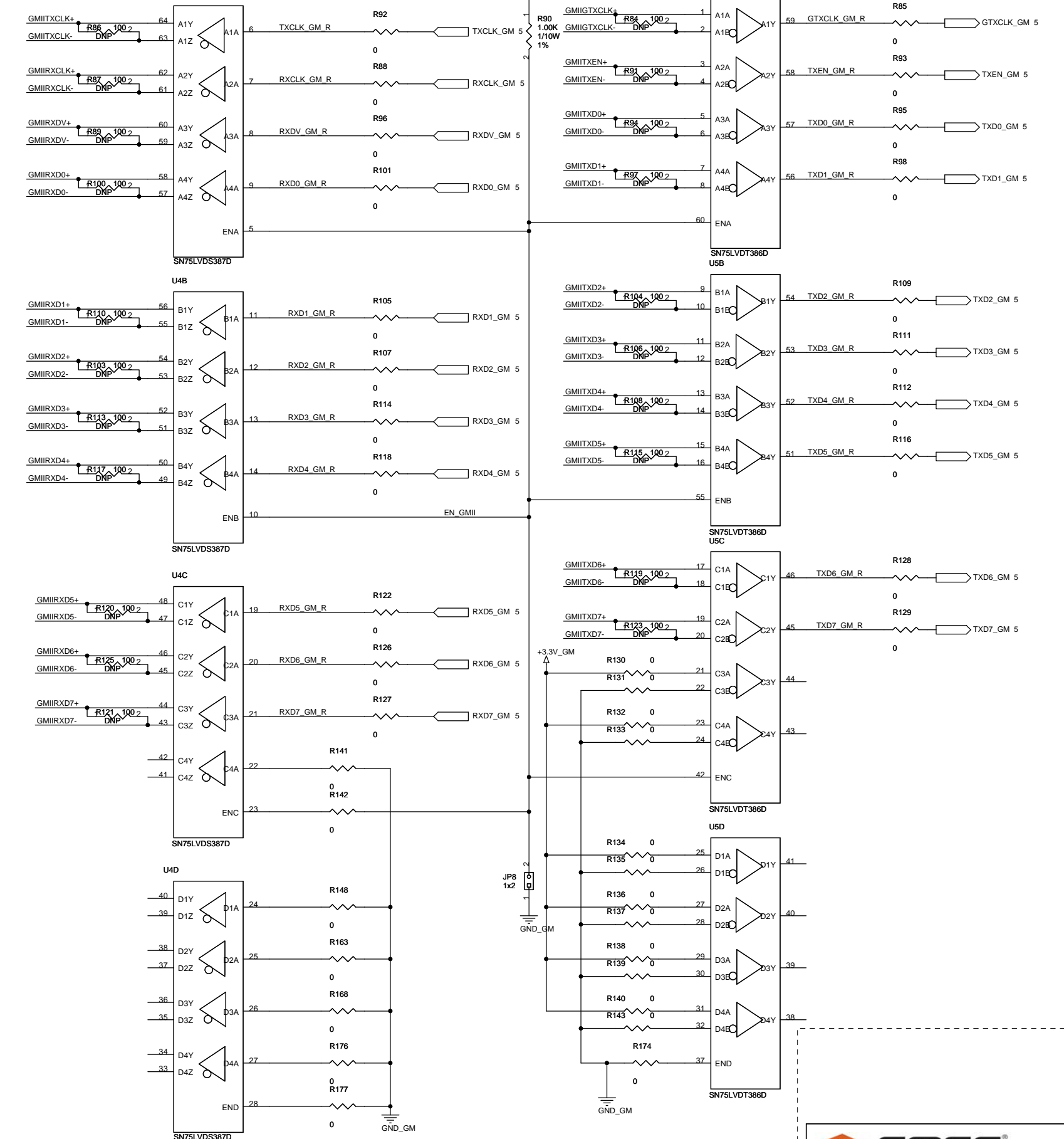
Title: GMIIL to LVDS Samtec				
Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
C	R.W.	6590	B	1.1
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LVDS Connector for Smartbits



NOTE:
 GMII VDD labeled 3VCC on GX-1421A GMII/MII Interface Spec.
 GMII VCC labeled 5VCC on GX-1421A GMII/MII Interface Spec.

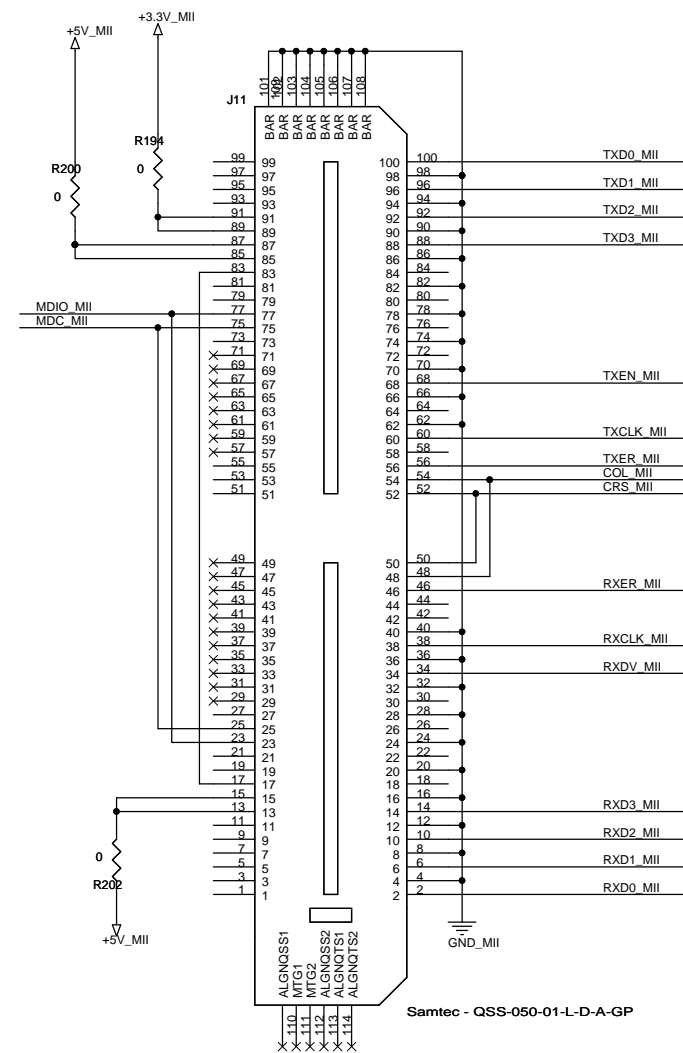
GMII to LVDS Transceiver



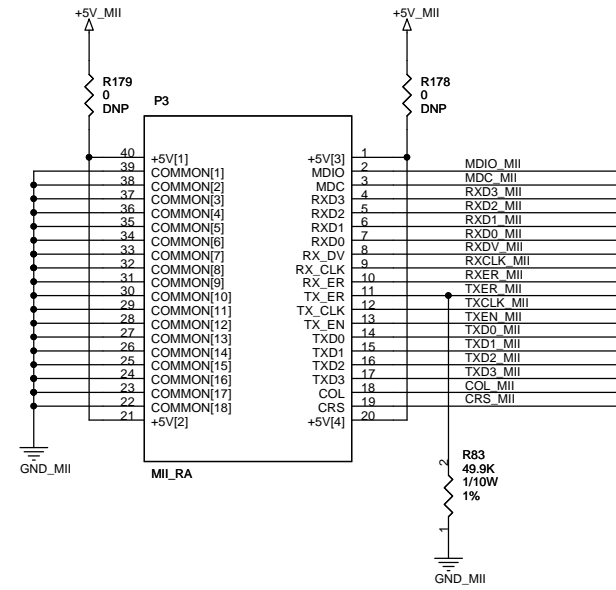
Important Note: Some support components shown in this design example may not be Industrial-Grade. Please be sure to check the manufacturer's datasheet(s) for detailed specifications and corresponding part numbers.

Title: GMII to LVDS XCVR				
Size: C	Engineer: R.W.	Assembly No.: 6590	PCB Rev: B	Schematic Rev: 1.1
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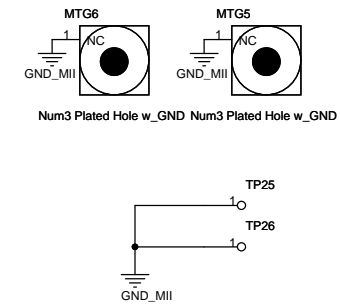
Samtec for Mating with 6590 Main Board



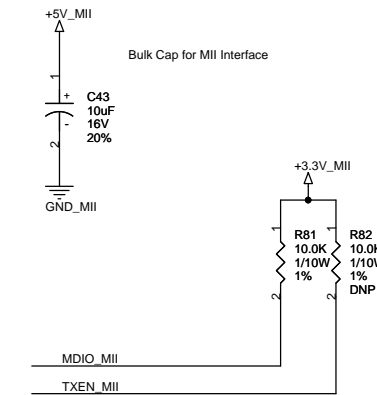
MII Connector



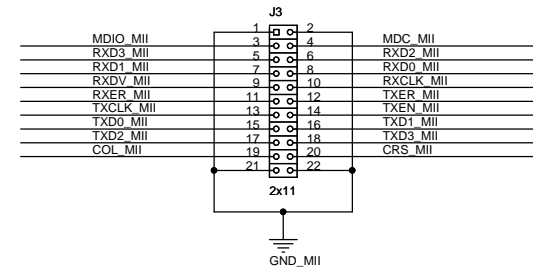
Ground Test Points and Mounting Holes



MII pullups and Bulk



MII Test Point Header



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Title: MII Breakoff				
Size: C	Engineer: R.W.	Assembly No.: 6590	PCB Rev: B	Schematic Rev: 1.1
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