

# LAN9303MI Reference Design

## Schematic Revision 1.3

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.

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### Revision History

#### Rev 1.0 to 1.1:


All Pages: Update to page formatting.

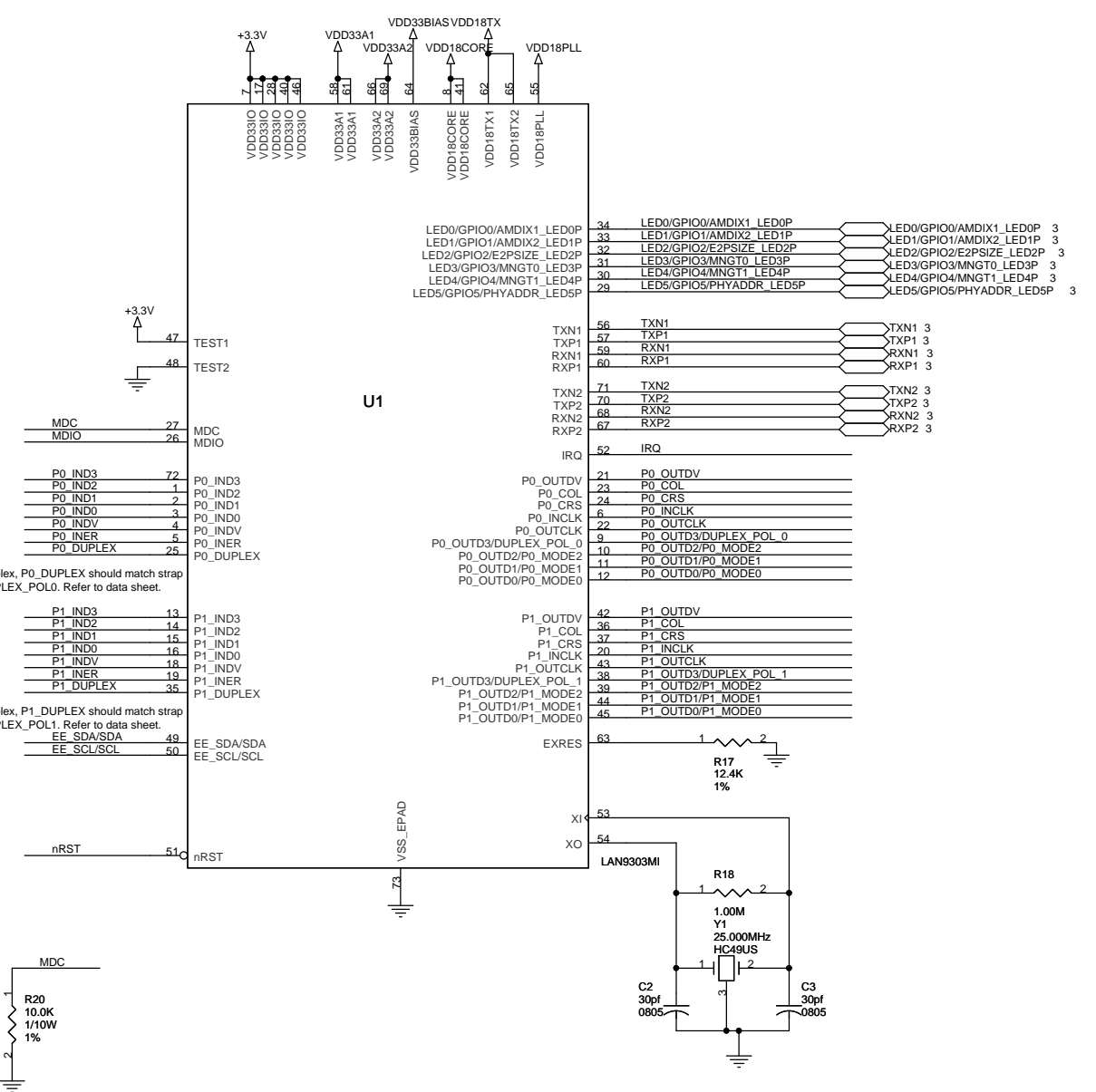
#### Rev 1.1 to 1.2:

Page 3: Changed Ethernet magnetics module center-tap resistor values (R28, R37) from 49.9 Ohms to 10.0 Ohms.

#### Rev 1.2 to 1.3:

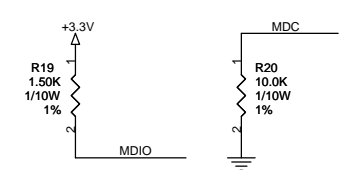
Page 2: Added note stating I2C pull-ups are required when operating without an EEPROM.

			
Title			
Size	Engineer	Assembly No.	Rev
C	R. Walsh	LAN9303MI	1.3
Date:		Sheet 1 of 3	
Friday, June 11, 2010			

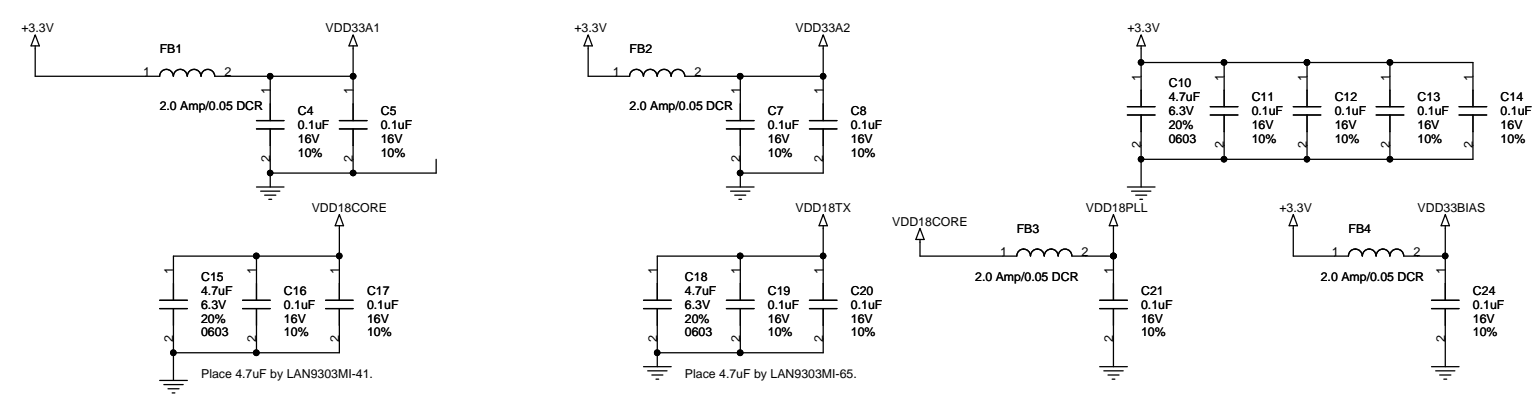


To enable full duplex, P0\_DUPLEX should match strap value for P0\_DUPLEX\_POL0. Refer to data sheet.

To enable full duplex, P1\_DUPLEX should match strap value for P1\_DUPLEX\_POL1. Refer to data sheet.

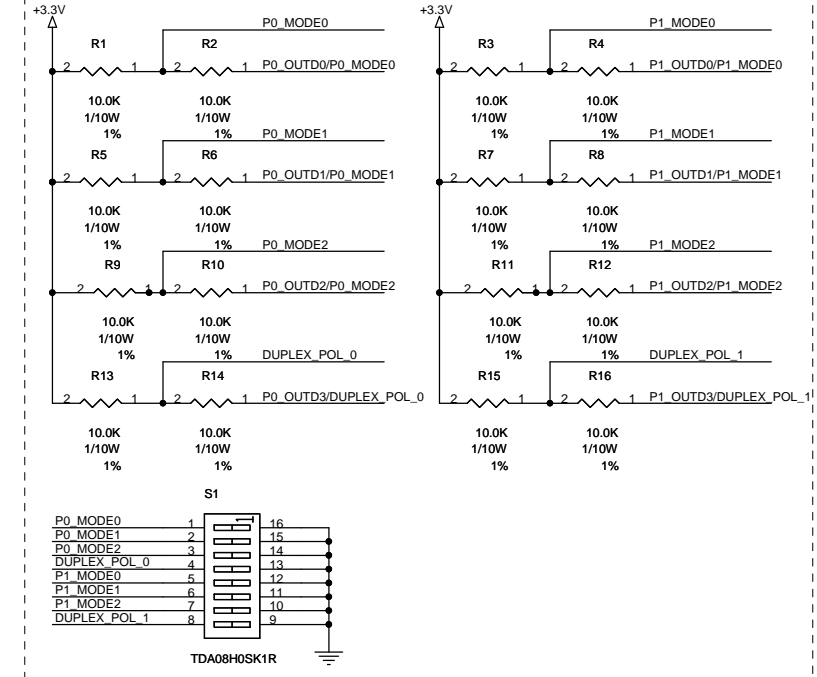


### Power Supply Filtering LAN9303MI

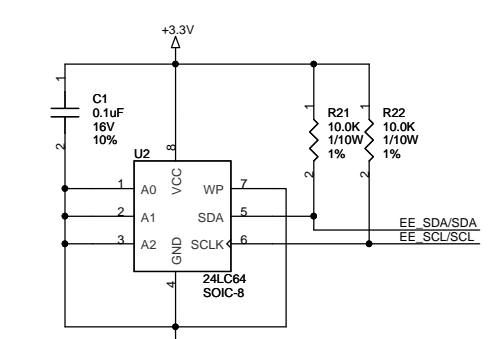


### Optional Mode Select.

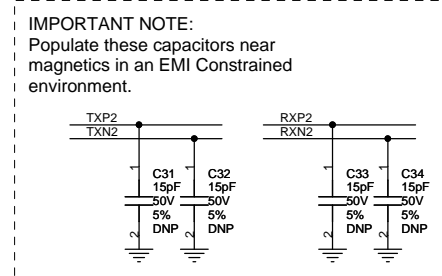
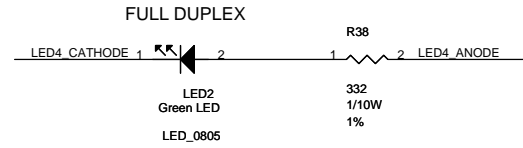
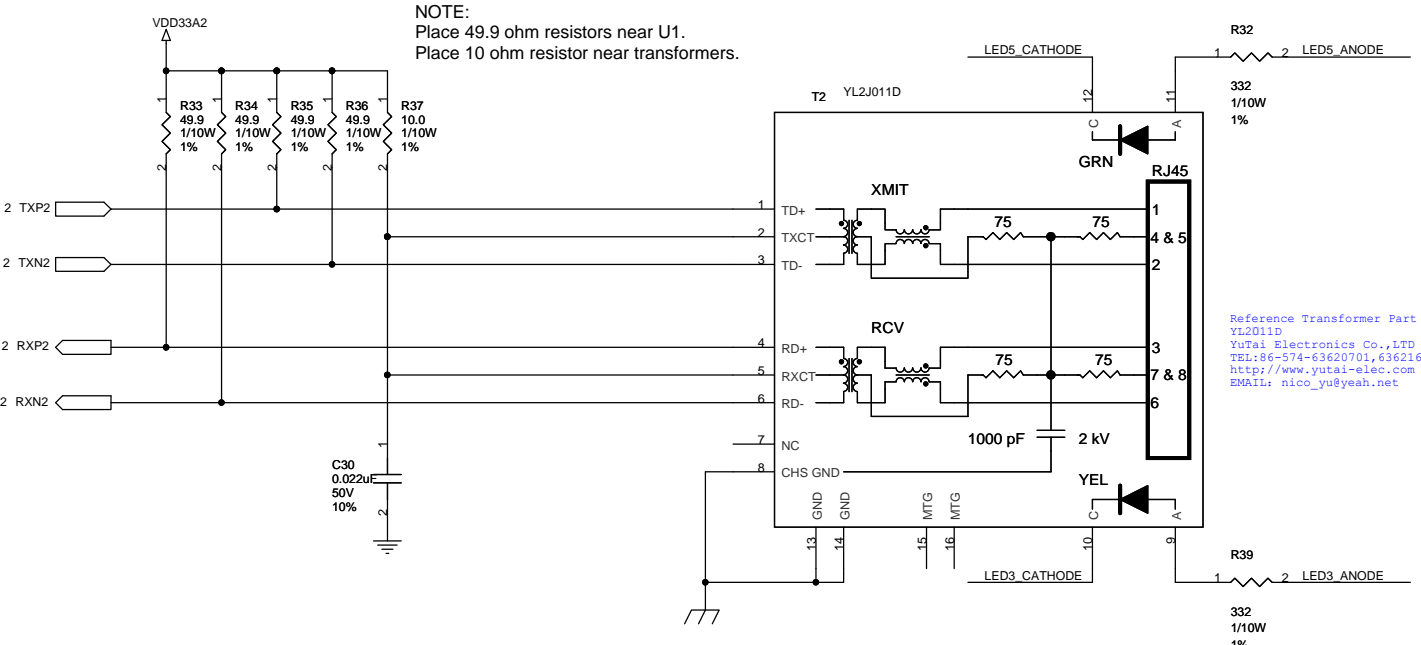
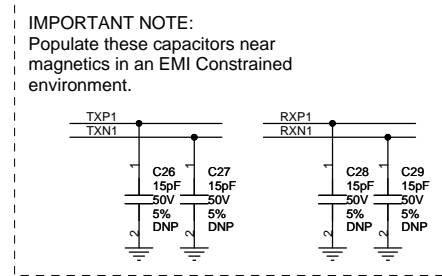
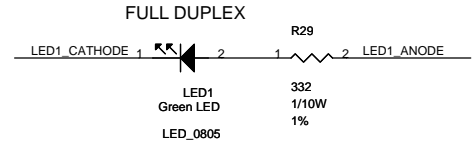
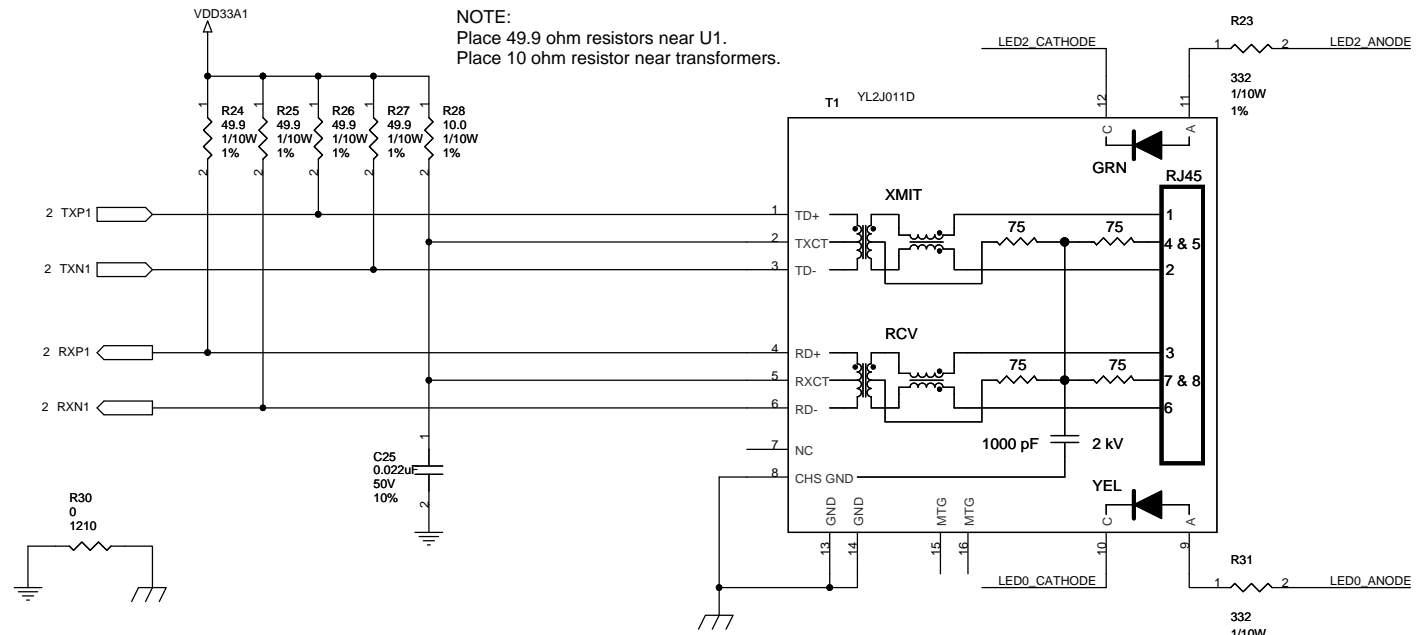
Place R2, R6, R10, R14 near the PO\_OUTD0-3 signals. They serve to isolate the OUT DATA from the trace stub that runs to the strap pull-ups and Switch. Same for R4, R8, R12 and R16.



### Optional I2C Serial EEPROM



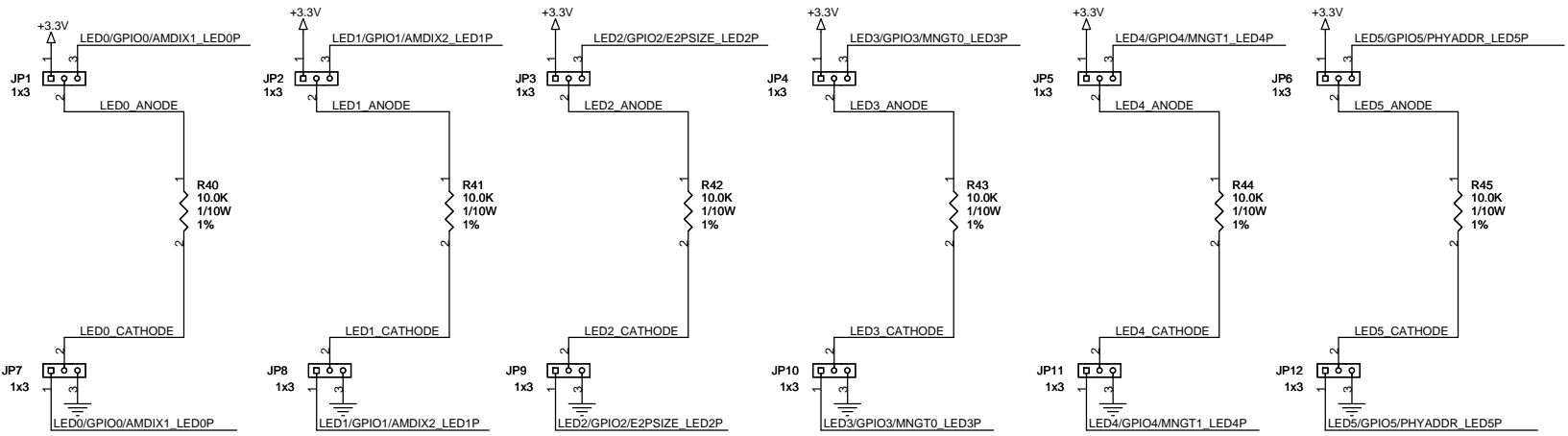
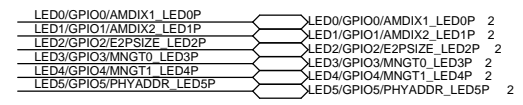
**IMPORTANT NOTE:**  
Pull-ups are required on the EE\_SDA/SDA and EE\_SCL/SCL pins whether an EEPROM is used or not used.



Reference Transformer Part No. list  
YL2011D  
YuTai Electronics Co.,LTD  
TEL:86-574-63620701,63621610  
http://www.yutai-elec.com  
EMAIL: nico\_yu@yeah.net

**Optional LED Strap Circuitry.**

Vertically aligned jumpers, i.e. JP1 and JP7, should be set to the same setting. For example, Setting JP7 1-2 and JP13 1-2 selects AUTOMDIX1 enabled.



**SMSC**  
SUCCESS BY DESIGN

Title: **LAN9303MI Ethernet**

Size C	Engineer <b>R. Walsh</b>	Assembly No. <b>LAN9303MI</b>	Rev <b>1.3</b>
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