LAN89218 Mini Development Card

Assy 6519

PCB Revision B

Schematic Revision 1.0

Design Details

Board:
Assy 6519

Chip:
SMSC LAN89218

Board Form Factor:
Larger than 2.346" x 2.300"

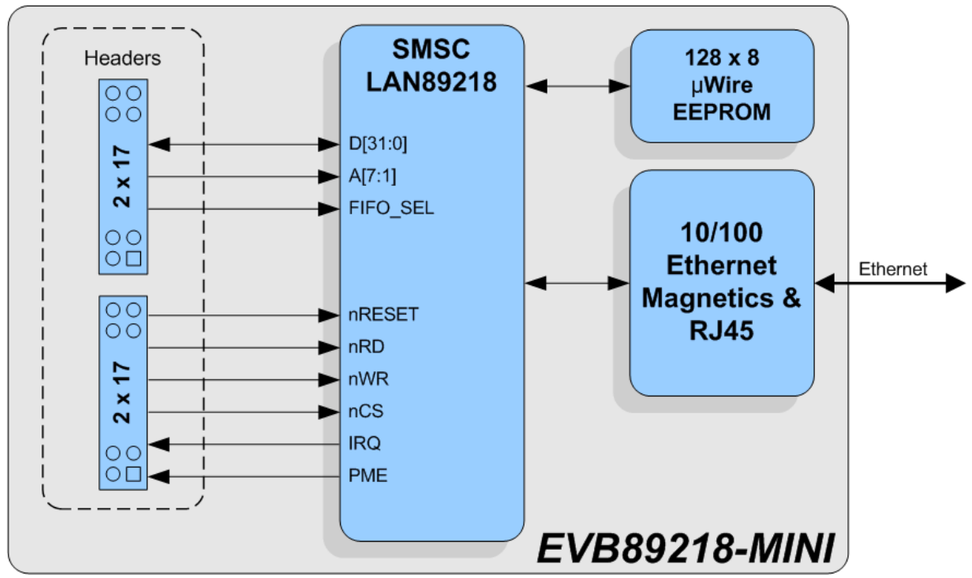
Assembly:
100-Pin TQFP

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

Revision History

Rev 1.0:

BLOCK DIAGRAM

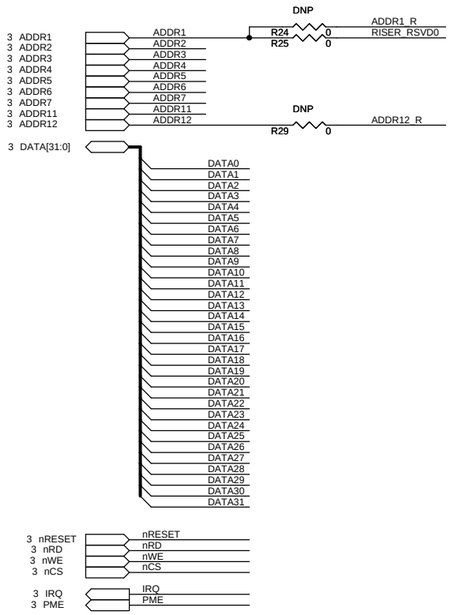


Title: LAN89218 Customer Evaluation Board				
Size: C	Engineer: J.M.	Assembly No.: 6519	PCB Rev: B	Schematic Rev: 1.0
Date: Tuesday, February 14, 2012		Sheet 1 of 3		

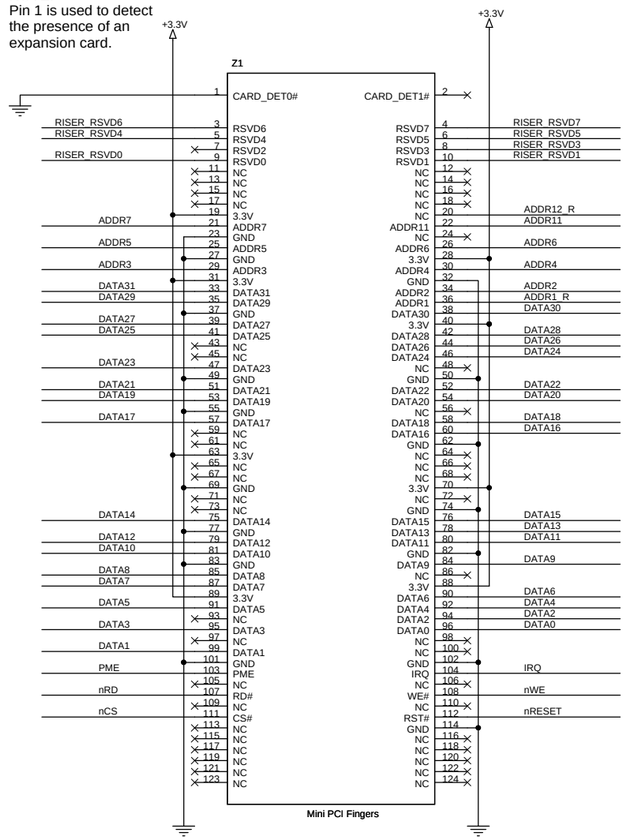
Important Note: Some support components shown in this design example may not be Automotive-Grade. Please be sure to check the manufacturer's datasheet(s) for detailed specifications and corresponding part numbers.

Local Bus Expansion Slot

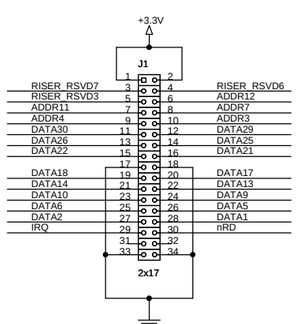
NOTE:
ADDR1 is connected to RISER_RSVD0
(Pin 9 on Z1) by default.
Remove R25 and populate R24 to connect
ADDR1 to ADDR1_R (Pin 36 on Z1)

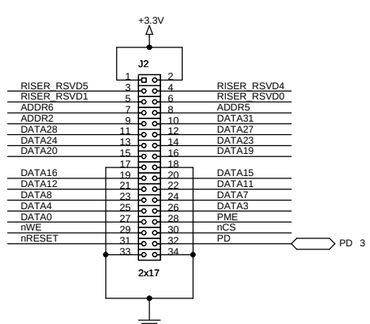


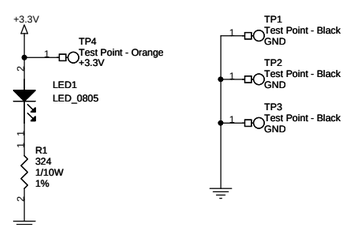
NOTE:
Pin 1 is used to detect
the presence of an
expansion card.



Local Bus Test Points



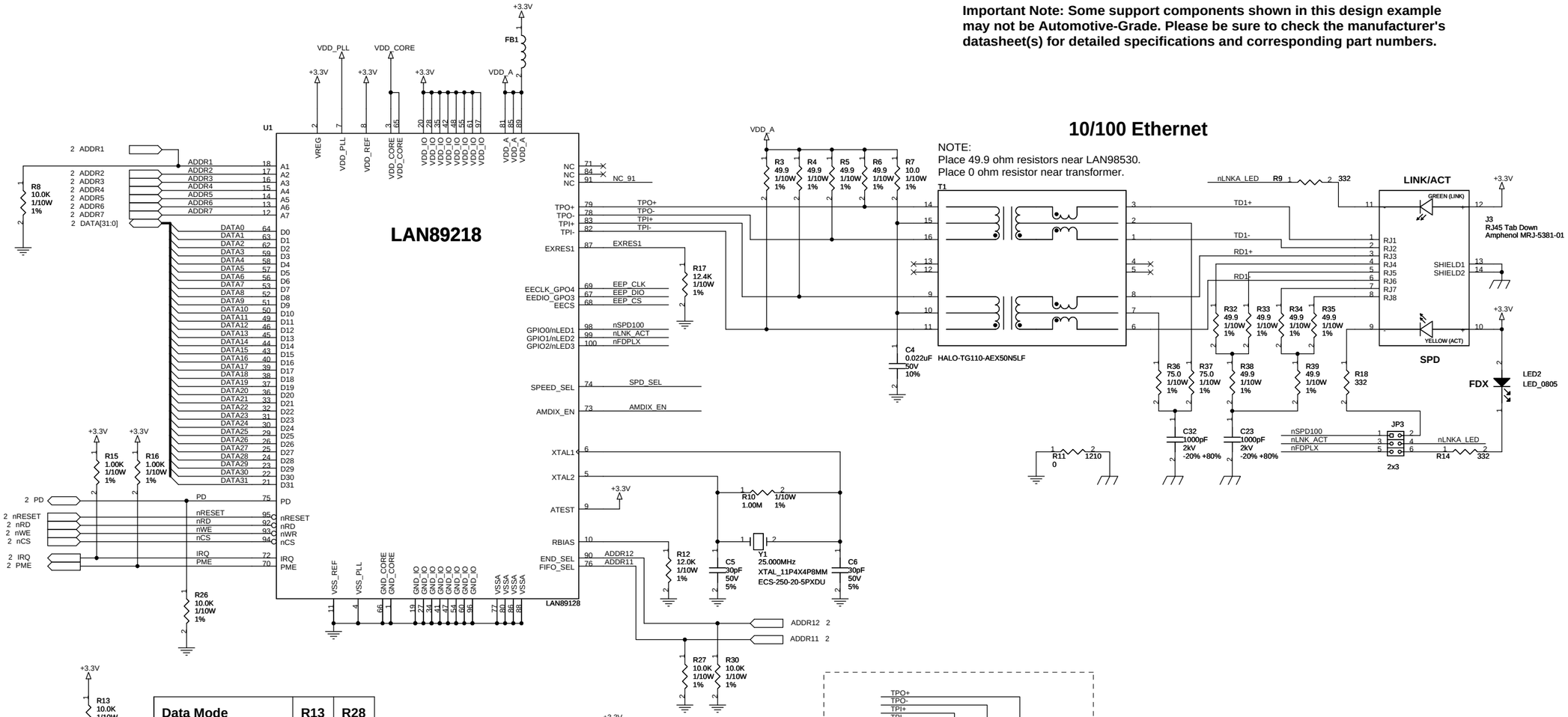




SMSC SUCCESS BY DESIGN

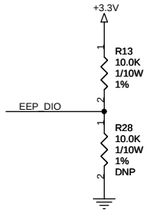
Title				
Expansion Slot Edge Fingers				
Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
C	J.M.	**6519**	**B**	**1.0**
Date:	Tuesday, February 14, 2012		Sheet	**2** of **3**

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



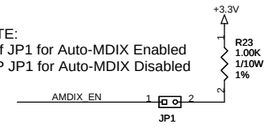
10/100 Ethernet

NOTE:
Place 49.9 ohm resistors near LAN98530.
Place 0 ohm resistor near transformer.

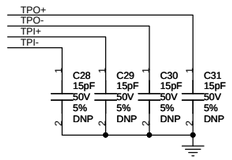


Data Mode	R13	R28
32 Bit Mode	Stuff	DNP
16 Bit Mode	DNP	Stuff

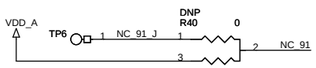
Table A: Device Configuration Straps



NOTE:
Stuff JP1 for Auto-MDIX Enabled
DNP JP1 for Auto-MDIX Disabled

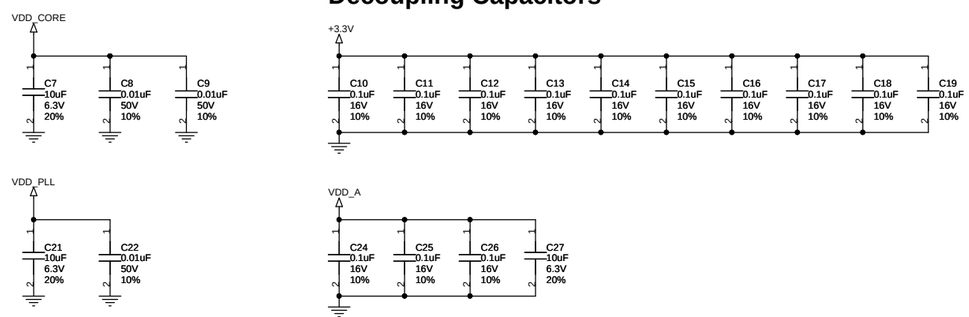


IMPORTANT NOTE: Capacitors C28 – C31 are optional and are not present on the Mini Development Board. These capacitors are required for operation in an EMI constrained environment. When used, these capacitors must be placed close to the transformer.

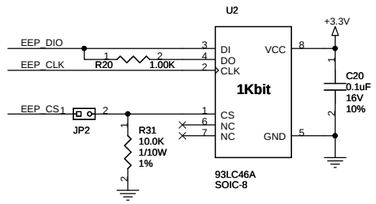


NOTE:
R154 for SMSC use only.

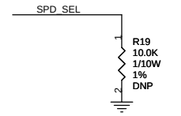
Decoupling Capacitors



MAC EEPROM (Optional)



NOTE:
A pull-down resistor on the EEPROM's chip select (CS) signal is recommended by many EEPROM manufacturers. Please refer to the EEPROM manufacturer's data sheet for further information.



NOTE:
Stuff R19 for 10Mbps, Half-Duplex, Auto Neg. Disabled
DNP R19 for 100Mbps, Half-Duplex, Auto Neg. Enabled

SMSC SUCCESS BY DESIGN

Title				
LAN89218				
Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
C	J.M.	6519	B	1.0
Date:	Tuesday, February 14, 2012		Sheet 3 of 3	