LAN9514 64QFN Customer Evaluation Board

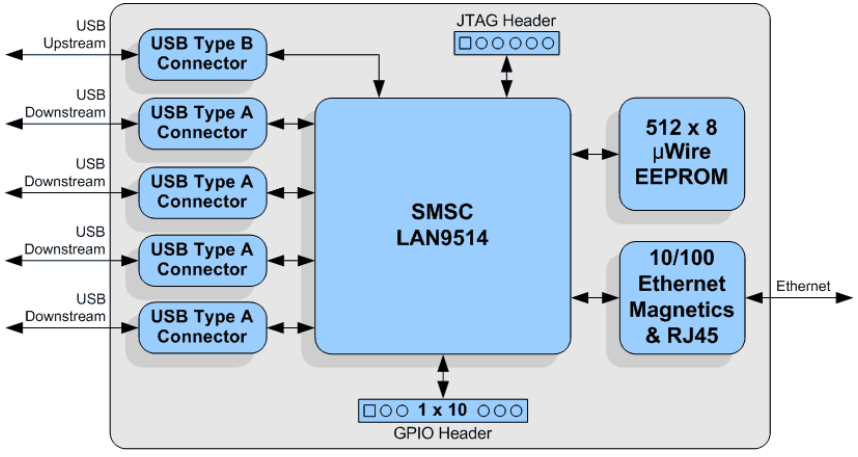
PCB Revision B

Schematic Revision 1.2

Design Details

Board: Assembly No. 6569
Chip: 64 Pin QFN
Board Form Factor: 4" X 2.5"

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.

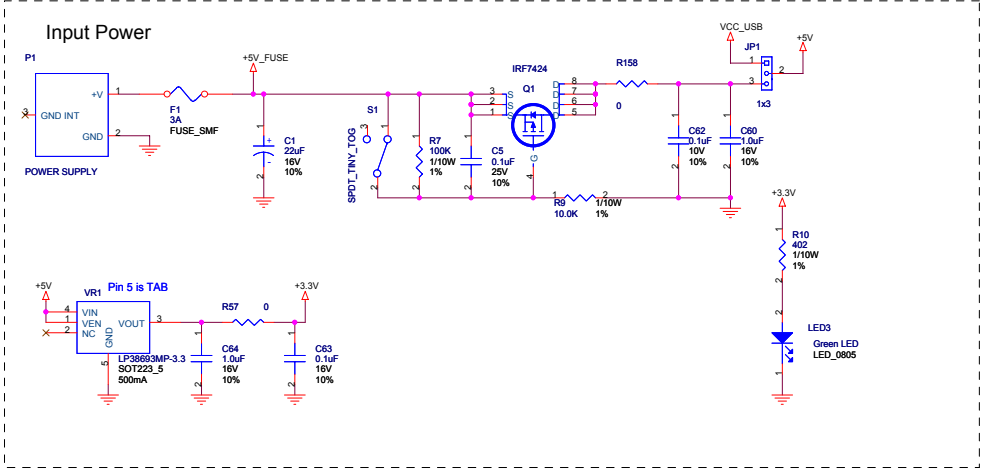


ITEM	Page
Title Page	1
Power and Ethernet	2
LAN9514 64QFN	3
Unpopulated EMI and ESD	4

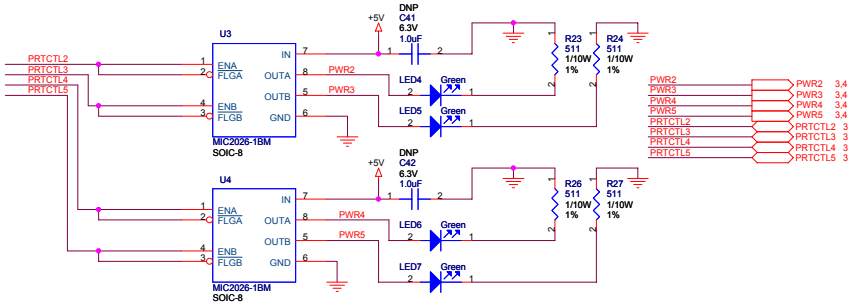
SMSC SUCCESS BY DESIGN

Title				
LAN9514 4-Port USB 2.0 to Ethernet Hub				
Size: C	Engineer: R.W.	Assembly No.: 6569	PCB Rev: B	Schematic Rev: 1.2
Date: Wednesday, January 06, 2010			Sheet 1 of 4	

Input Power

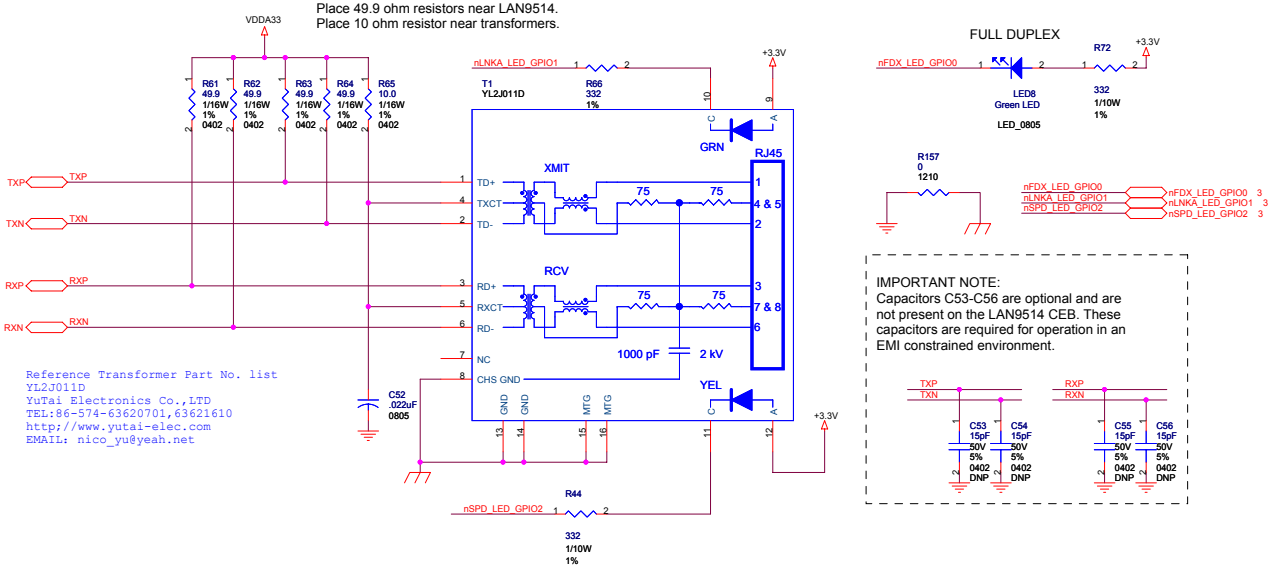


Power Switching Downstream



Ethernet

NOTE:
Place 49.9 ohm resistors near LAN9514.
Place 10 ohm resistor near transformers.



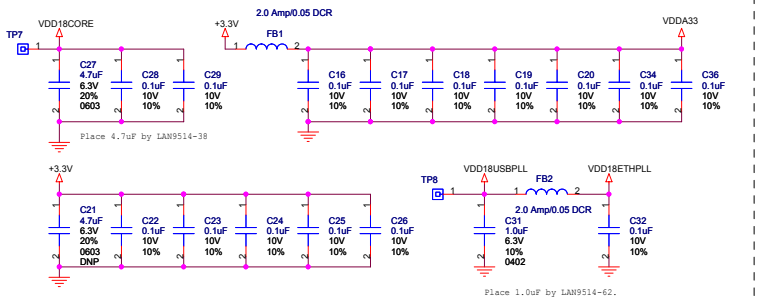


IMPORTANT NOTE:
Capacitors C53-C56 are optional and are not present on the LAN9514 CEB. These capacitors are required for operation in an EMI constrained environment.

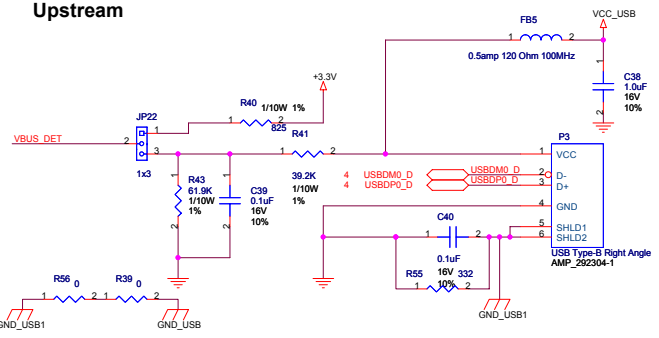
smsc SUCCESS BY DESIGN

Title				
Power and Ethernet				
Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
C	R.W.	6569	B	1.2
Date:	Wednesday, January 06, 2010	Sheet	2 of 4	

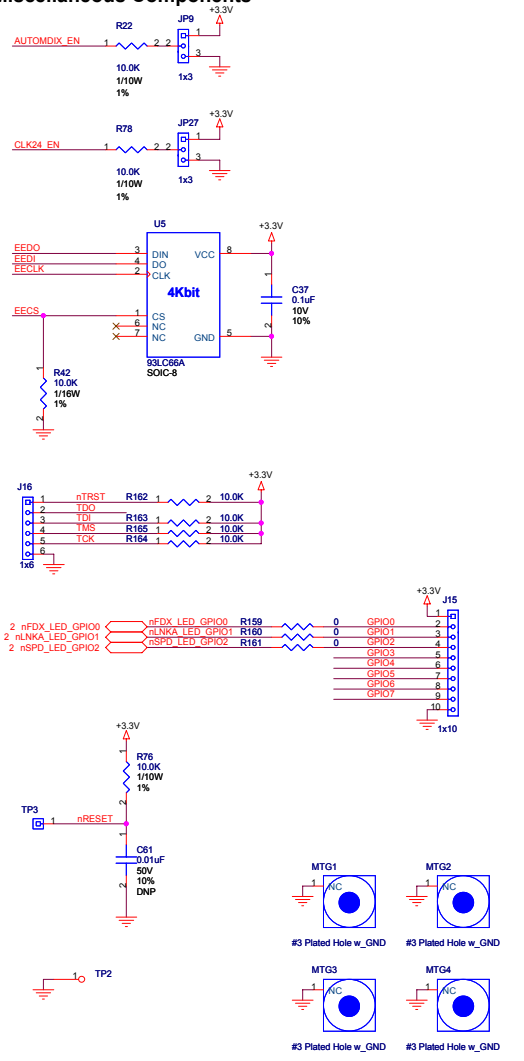
Power Supply Filtering LAN9514



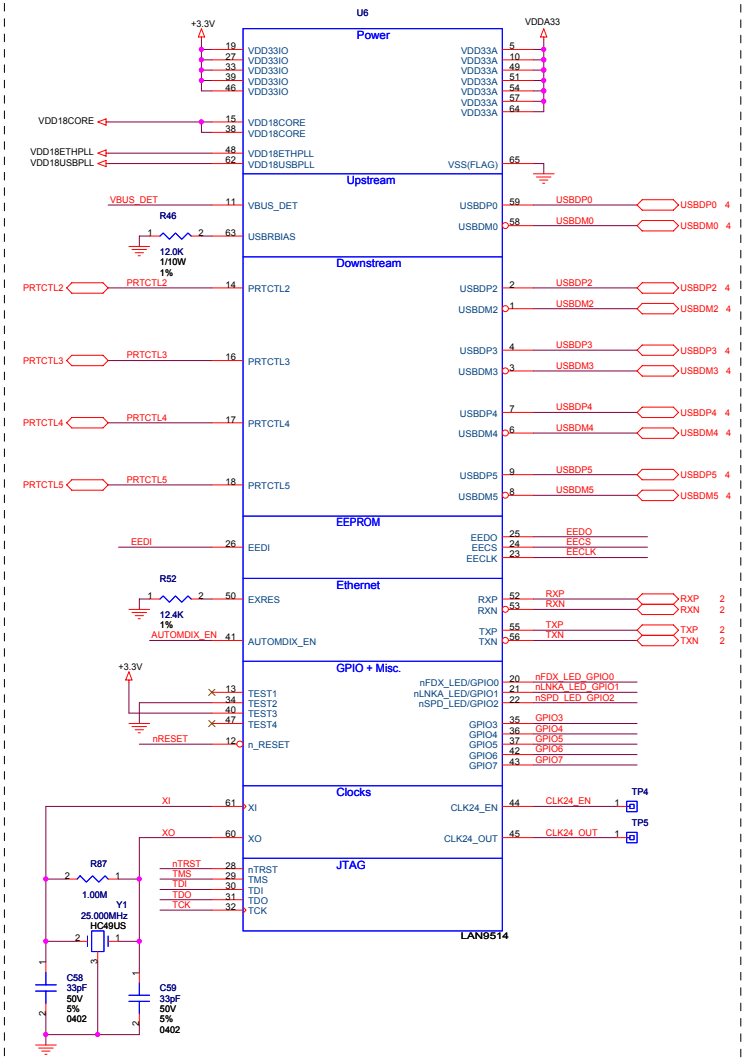
Upstream



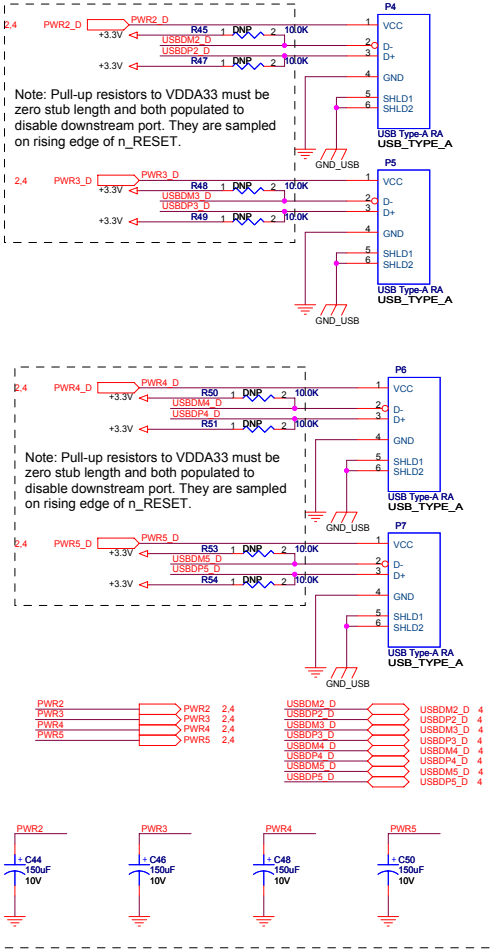
Miscellaneous Components



LAN9514

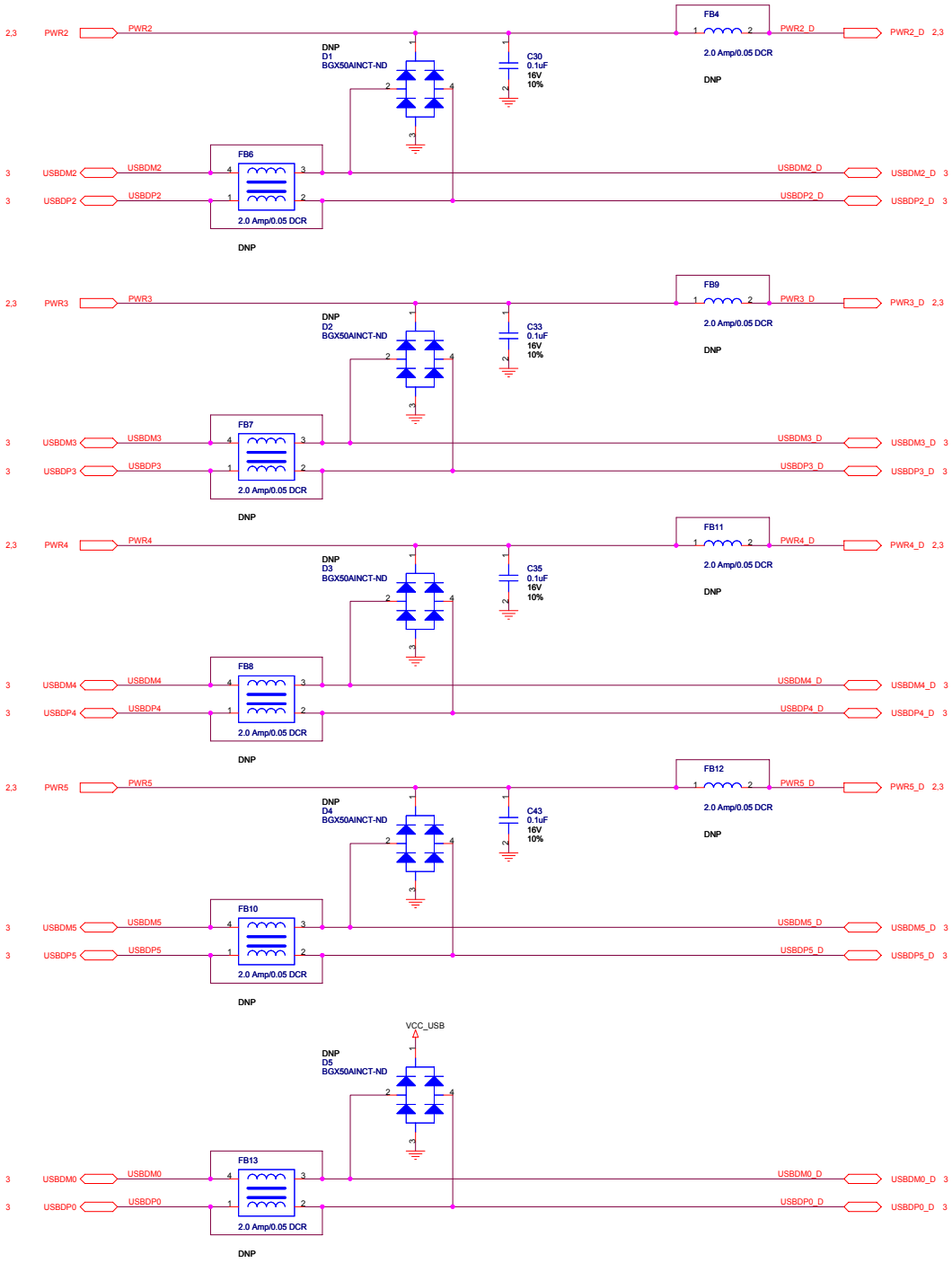


Downstream



Title: LAN9514 64QFN				
Size: C	Engineer: R.W.	Assembly No.: 6569	PCB Rev: B	Schematic Rev: 1.2
Date: Wednesday, January 06, 2010			Sheet 3 of 4	

Note:
Ferrites, common mode chokes and ESD diodes are normally NOT populated.
Part terminals have been shorted to allow normal operation without parts.
Exposed traces in footprints must be cut prior to installation of these parts.



SMSC
SUCCESS BY DESIGN

Title				
Unpopulated EMI and ESD				
Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
C	R.W.	6569	B	1.2
Date:	Wednesday, January 06, 2010		Sheet	4 of 4