LAN8720A RMII PHY Customer Evaluation Board

Assy 6584

PCB Revision C

Schematic Revision 1.3

Design Details

Board:
Assy 6584

Chip:
SMSC LAN8720A

Board Form Factor:
MII Add-On Card

Assembly:
24 Lead QFN w/ Exposed GND Pad

Revision History

Rev 1.0:

Initial release, Rev C

Rev 1.1:

U3 (page 2) - Changed from 74LVC1G07 to 74LVC1G17 in rework prior to release of all Revision C boards.

"Configuration Resistor Settings" (Pg. 03): Created new table.

Configuration Resistor Settings" table, (Pg. 03): Correction to signal name within table from "nINT/TXEN/TXD4" to "nINT/REFCLKO Signal".

Added text to signal "nINT" pull-up jumper.

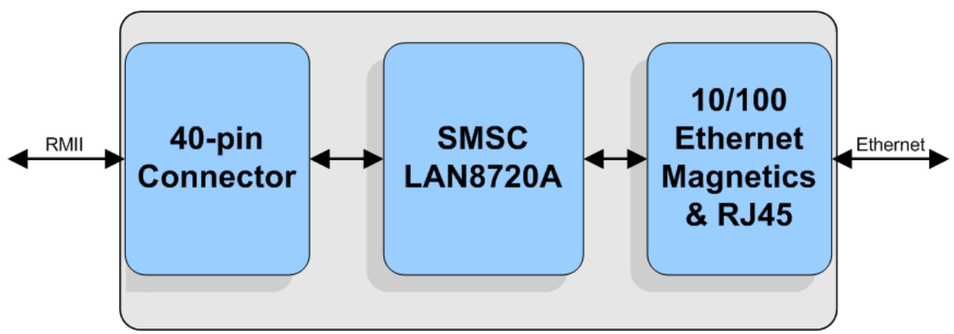
Rev 1.2:

All Pages - Changed from LAN8720 to LAN8720A

Rev 1.3:

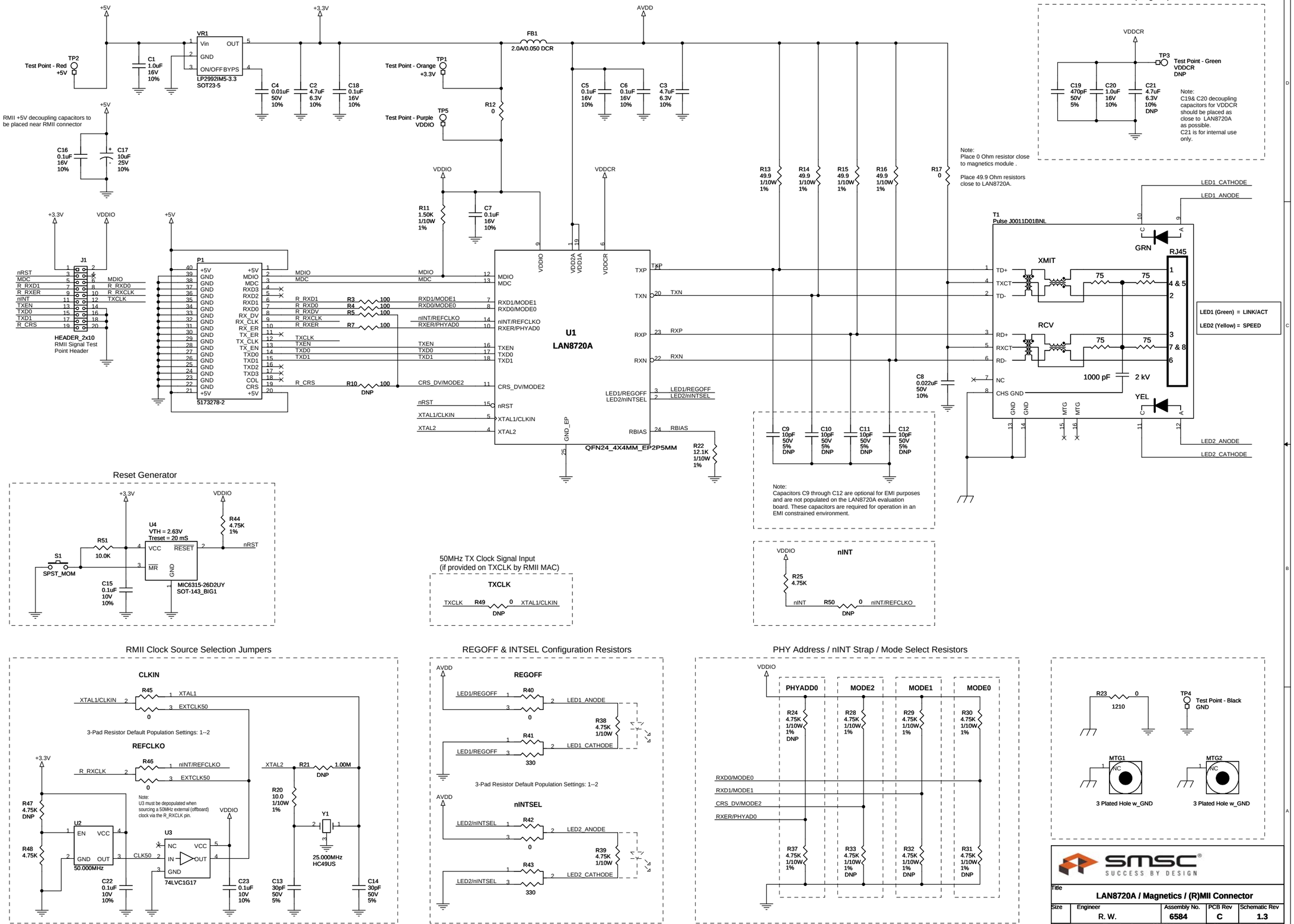
C19 changed from 0.1uF to 470pF.

BLOCK DIAGRAM



Title: LAN8720A RMII PHY Customer Evaluation Board				
Size	Engineer: R. W.	Assembly No.: 6584	PCB Rev: C	Schematic Rev: 1.3
Date: Tuesday, May 18, 2010			Sheet 1 of 3	

LAN8720A / Magnetics / RMII Connector



Title: LAN8720A / Magnetics / (R)MII Connector				
Size	Engineer: R. W.	Assembly No.: 6584	PCB Rev: C	Schematic Rev: 1.3
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Configuration Settings

Configuration Settings

SIGNAL	POPULATE	DEPOPULATE		COMMENTS
PHYAD[0] = 0	R37	R24	Default	
PHYAD[0] = 1	R24	R37		
MODE[0] = 0 MODE[1] = 0 MODE[2] = 0	R31 R32 R33	R30 R29 R28		
MODE[0] = 1 MODE[1] = 1 MODE[2] = 1	R30 R29 R28	R31 R32 R33	Default Default Default	
Internal 1.2V Reg. Enabled Internal 1.2V Reg. Disabled	R40 & R41: 1-2 R40 & R41: 2-3	R40 & R41: 2-3 R40 & R41: 1-2	Default	
Interrupt Function Enabled on nINT/TXER/TXD4 Signal Interrupt Function Disabled on nINT/TXER/TXD4 Signal	R50, R42 & R43: 2-3 R42 & R43: 1-2	R42 & R43: 1-2 R50, R42 & R43: 2-3	Default	
25.000MHz Crystal Clock Source Enabled	R20, R48, R45 & R46: 1-2	R47, R49 R45 & R46: 2-3	Default	Interrupt Function must be disabled in this configuration.
25MHz Crystal Clock Source Disabled, with Offboard 50MHz Clock Source Provided on TXCLK	R48, R49	R20, R47, R45 & R46: 1-2 R45 & R46: 2-3		Interrupt Function must be enabled in this configuration.
25MHz Crystal Clock Source Disabled, with Offboard 50MHz Clock Source Provided on RXCLK	R48, R45 & R46: 2-3	U3, R20, R47, R49 R45 & R46: 1-2		Interrupt Function must be enabled in this configuration.
25MHz Crystal Clock Source Disabled, with Onboard 50MHz Clock Source Provided on RXCLK	U3, R47, R45 & R46: 2-3	R20, R48, R49 R45 & R46: 1-2		Interrupt Function must be enabled in this configuration.
25MHz Crystal Clock Source Disabled, with Onboard 50MHz Clock Source Provided on RXCLK via REFCLK0	U3, R47, R45: 2-3 R46: 1-2	R20, R48, R49 R45: 1-2 R46: 2-3		Interrupt Function must be disabled in this configuration.

SMSC SUCCESS BY DESIGN

Title				
Configuration Settings				
Size	Engineer	Assembly No.	PCB Rev	Schematic Rev
	R. W.	6584	C	1.3
Date:	Tuesday, May 18, 2010		Sheet 3 of 3	