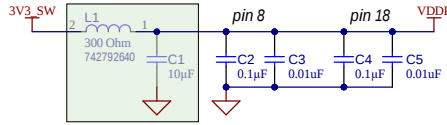
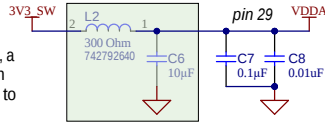


LAN8670 SC-MII Application - With Wake/Sleep

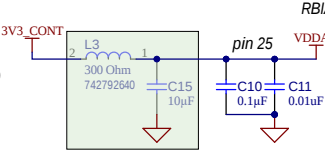
LAYOUT NOTE: Place one 0.01uF and one 0.1uF at each power pin. The 0.01uF must be closest to the pin.



Ferrite beads are optional. If used, a bulk capacitor is recommended on the device side of the ferrite bead to dampen potential oscillation.

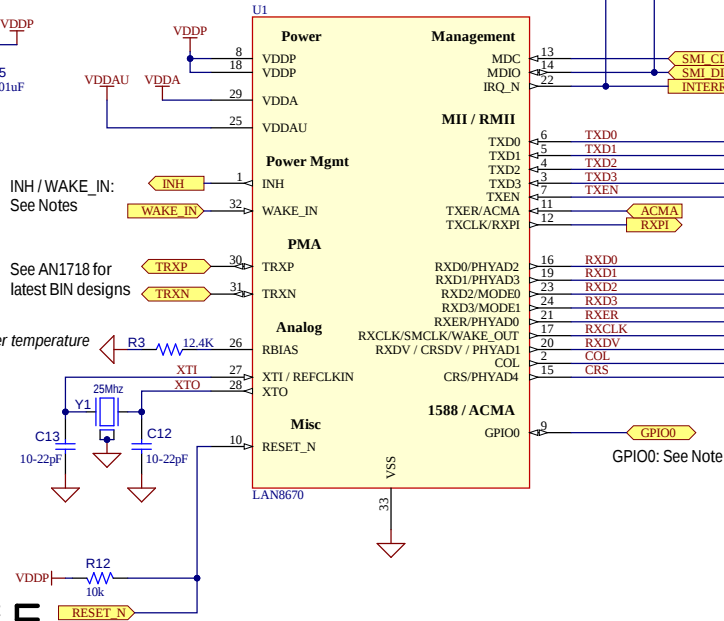


VDDAU: Continuous supply for wake/sleep



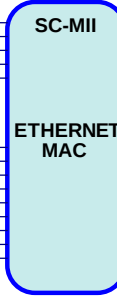
NOTE: If the system reset is unused, RESET_N pin can be connected directly to VDDP

from system reset



MDIO pull-up resistor:
Value based on capacitive bus loading. For light loading, 10k Ohms is a good starting value.

Serial Management Interface (SMI)
OPTIONAL: IRQ_N: If used, a pull-up resistor is required



Hardware Configuration Straps:

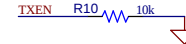
Values are latched upon POR RESET_N negated.

EXTERNAL RESISTORS (REQUIRED)

10k Ohm typical Strap resistors.
Strap resistor value is dependent on the Ethernet MAC internal resistor values.
Strap resistors must be able to override the Ethernet MAC internal pull-up or down resistor to set a logic low or high.

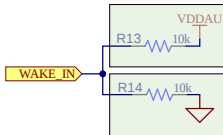
MODE[1:0]
00b - reserved
01b - MII with 25MHz crystal
10b - RMII with 50MHz REFCLKIN
11b - SC-MII with 25MHz crystal

PHYAD[4:0]
0x00h - 0x1Fh
valid address range



NOTE: When the MAC sublayer is in reset or unconfigured, the TXEN output pin may become high impedance and floating. A pull-down can be added to prevent false TXEN assertions and accidental transmissions.

WAKE_IN: polarity configured pull-up or pulldown (install R13 or R14, never both) (if unused, connect to VSS)



ACMA: Allows PHY to transmit to the medium. (if unused, connect to VSS)

GPIO0: Configurable as TXPI or RXTXPI (if unused leave unconnected)

RXPI: Asserted when PHY receives a packet. (if unused, leave unconnected)