Reference Schematic for LAN9252-HBI-Indexed Mode

Configurations
HBI Indexed mode
EEPROM - 24FC512 (High)
2Port mode
Port0 & Port1 = Copper

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POWER SUPPLY

3V REGULATOR, 3A
(3V3 fixed when Rb=470E)

U1

TP1 RED

TP2 ORANGE

VIN 1

DISABLE 2

ENABLE 3

TRIM 4

VOUT 5

D1 GRN

R1 1K

SW1 1101M030C0E2 C&K

PJ-002AH Cu Stack

C1 4.7uF

C2 0.1uF

R2 0E

C3 0.1uF

C4 10uF

C5 0.1uF

R3 3.30K

R4 470E

R4A1 33E 1%

R5 730K

R6 220K

R7 10K

R8 10K

R9 10K

R10 10K

TP1 WHITE

TP2 ORANGE

3V3

5V

5V SW

EN12_1

5V_EXT

LED 1

LED 2

LED 3

LED 4

LED 5
Note: PIN 4_OSCVSS need to connect Chip Gnd.

Power Supply Filtering

Note: Place close to the IC
LAN9252 HBI Indexed Mode

**Note:** In SoC, if RD & WR is different pins then RD need to connect with pin 31 & WR need to connect with pin 30

If RD & WR are same pin, then RD_WR need to connect with pin 31, and the ENB need to connect with pin 30

**Strap Details**

**Signals Functions**

- **GPIO1 = LINKACTLED/TPDO/LEDPOL0/CHIP_MODE0**
- **GPIO2 = RUNLED/LEDPOL0/E2PSIZE**

**GPIO [0:2] & LED_POL_Strap**

**EEPROM (GPIO2) (RUN/LED) 0**

- **The LED is set as active high. Low EEPROM Size P/N = 24C04 1K bits (128 x 8) through 16K bits (2K x 8)**

**EEPROM (GPIO2) (RUN/LED) 1**

- **The LED is set as active low. Low EEPROM Size P/N = 24FC512 32K bits (4K x 8) through 512K bits (64K x 8) or 4Mbits (512K x 8) (LAN9252 only) [Default]**

**CHIP_MODE[1:0]**

- **0**: Port Description
  - **01**: RESERVE
  - **10**: Port 0 = PHY A, Port 1 = PHY B, Port 2 = M
    - **Port Description**: Mode
      - **0**: Port 0 = PHY A, Port 1 = PHY B, Port 2 = M
      - **1**: Port 0 = PHY A, Port 1 = PHY B, Port 2 = M

**FX_Mode_1 & 2**

- **FXSDA/FXLOSA**: PORT 0 Copper
- **FXSDB/FXLOSB**: PORT 1 Copper

**FX_Los_1 & 2**

- **ATEST/FXLOSEN**: 0 Level of IV Selects FX-SD/copper twisted pair for ports 0 and 1 further determined by FXSDA and FXSDB.

**I2C EEPROM**

- **Higher size EEPROM - 24FC512 used as Default Strap-E2PSIZE(GPIO2) is HIGH**
- **To use Lower size EEPROM - 24C04, Strap-E2PSIZE(GPIO2) to be changed to LOW**
Note: Capacitors C25 through C28 are optional for EMI purposes and are not populated on the LAN9252 evaluation board. These capacitors are required for operation in an EMI constrained environment.

Note: Capacitors C30 through C33 are optional for EMI purposes and are not populated on the LAN9252 evaluation board. These capacitors are required for operation in an EMI constrained environment.