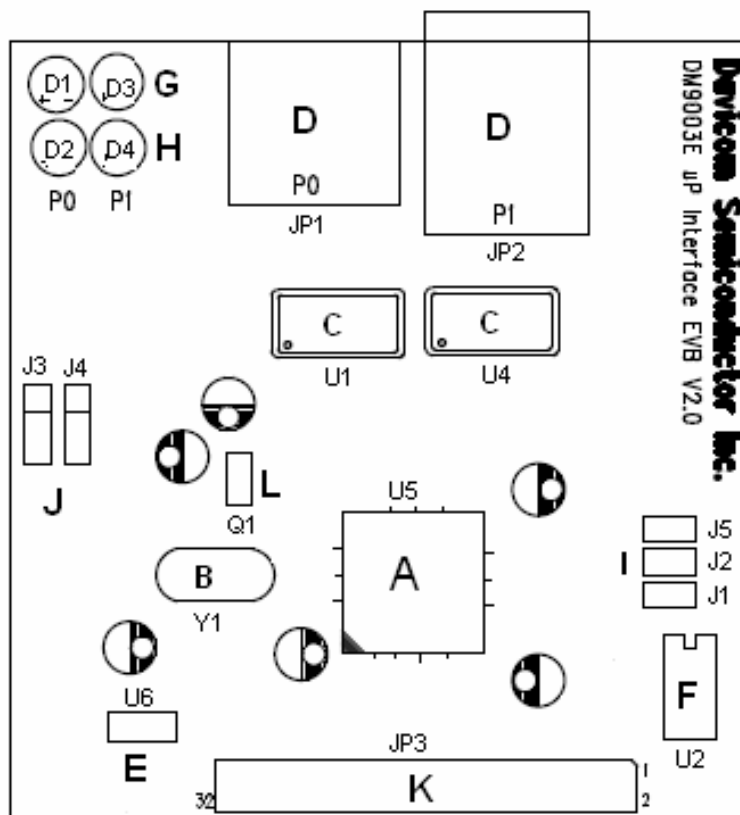


DM9003 8/16-Bit Evaluation Board

User Menu

The user menu for the DM9003 8/16-bit evaluation board provides information for a design engineer to be able to connect the DM9003 to any architecture. The DM9003 8/16-bit evaluation board is shown below.



A	DM9003	G	P0 & P1 Link status LED
B	25MHz Crystal	H	P0 & P1 Speed status LED
C	P0 & P1 10/100M Transformer	I	16bit Mode and EEPROM Setting
D	P0 & P1 RJ-45 Phone Jack	J	ISA/uP mode Setting
E	5V to 3.3V Regulator	K	16BIT Interface Connector
F	93LC46 EEPROM	L	3.3V to 1.8V Transistor

The detailed description of the table above is shown respectively below.

A. DM9003

The Davicom DM9003 is a 16-bit local bus Ethernet Controller which includes 2 ports of 10/100Mbps Ethernet Switch controller and is designed for the embedded system applications. The AUTO-MDIX switching capability to fit straight through or crossover cables is also supported.

B. 25MHz Crystal

The requirement of the crystal is of 25MHz +/-30ppm.

C. P0 & P1 10/100M Transformer

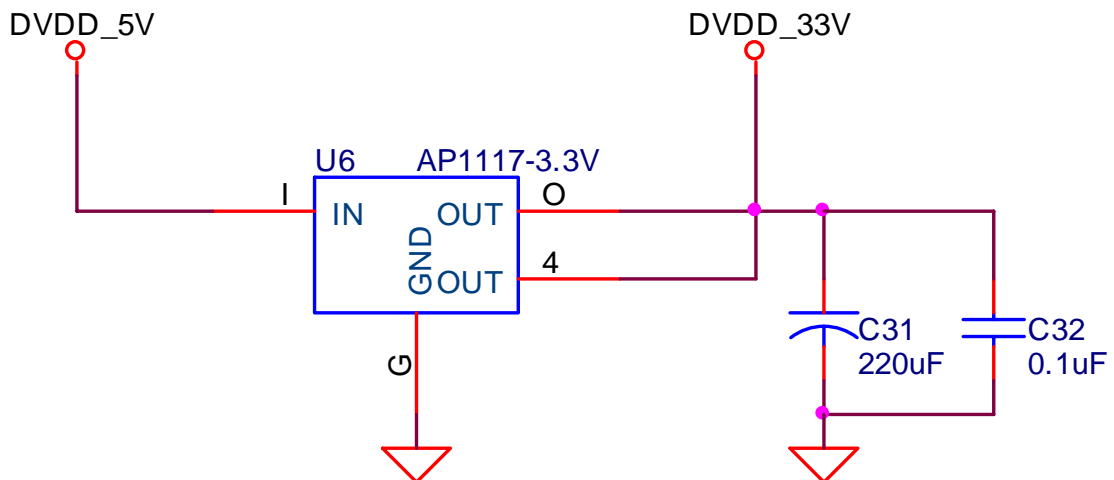
The suitable transformers shown as follows are for the design engineers' reference.

Vendor	Part Number
GTS	FC-621SM
YCL	PH163539
BOTHHAND	TS6121CX
MAGCOM	HS9016, HS9024

D. P0 & P1 RJ-45 Phone Jack

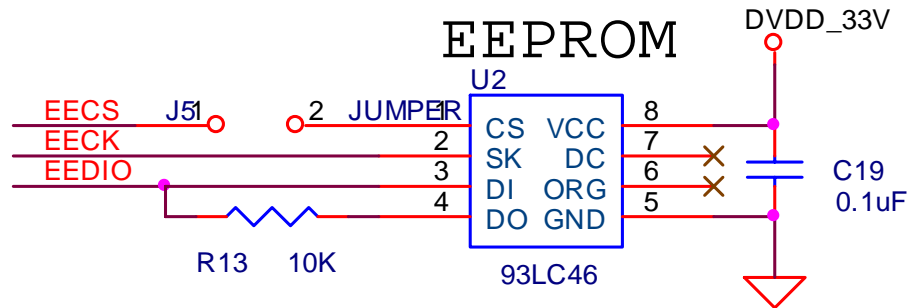
E. 5V to 3.3V Regulator

The reference circuit of 5V to 3.3V regulator is shown below. The type of regulator Q1 is SOT-223. The design engineer should take notice of that the specification of the regulator chosen should be the same as the regulator Q1 mentioned above and the output voltage should be fixed on 3.3V.



F. 93LC46 EEPROM

The package of 93LC46 is SOP8. In addition, the specification of the 93LC46 should be the same as the figure below.


G. P0 & P1 Link Status LEDs

The LINK/ACT LED is the link LED. If the LINK/ACT LED is on, it represents the link status is good. If the LINK/ACT LED is blinking, it presents that data are transmitting or receiving. If the LINK/ACT LED is off, it is probably that the link status is off or failure.

H. P0 & P1 Speed Status LEDs

The SPEED LED represents the link speed is 10M or 100Mbps.

If the SPEED LED is on, the link speed is 100Mbps. If the SPEED LED is off, the link speed is 10Mbps or link fails (depend on the LINK/ACT LED).

I. 8/16bit Mode and EEPROM Setting
1. J1:

The EECK pin is a strap pin to determine data bus width. It is pulled high for 8 bit and pulled low for 16bit.

ON: 8 bit mode.

OFF: 16 bit mode.

2. J2:

The EECS pin is a strap pin to determine INT Active High or Low output.

On: INT Active Low output.

OFF: INT Active High output.

3. J5

On: Enable EEPROM 93C46

OFF: Disable EEPROM 93C46

J. ISA/uP mode Setting

The SPD1_LED pin is for P1 SPEED LED and can be regarded as ISA IO16 function by changing EEPROM setting. In EEPROM, if bit [13:12] of WORD7 is set to 01 and bit [15:14] of WORD 3 is set to 01, the SPD1_LED will act as IO16 function instead of .SPD1_LED

The SPD0_LED is for P0 SPEED LED and also can be regarded as IOWAIT function by changing EEPROM setting. In, EEPROM, if bit [13:12] of WORD7 is set to 01 and bit [15:14] of WORD 3 is set to 01, the SPD0_LED will act as IOWAIT function instead of P0 SPEED LED

In DM9003 evaluation board, J4 is used to set SPD1_LED pin either for P1 SPEED LED or for IO16 function. J3 is used to set the SPD0_LED pin either for P0 SPEED LED or for IOWAIT function. The following list is the configuration for ISA and uP mode.

1. uP mode setting:

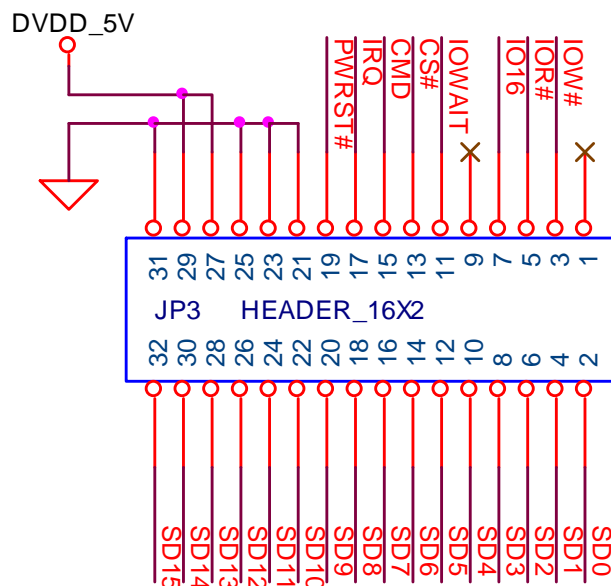
J3 1-2 short, J4 1-2 short.

2. ISA mode setting:

J3 2-3 short, J4 2-3 short.

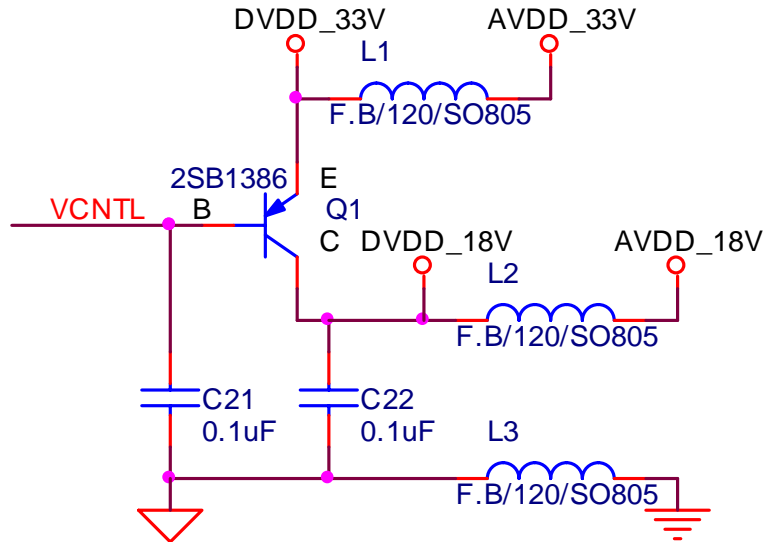
K. 16BIT Interface Connector

The following figure shows the pin configuration in 16Bit interface mode.

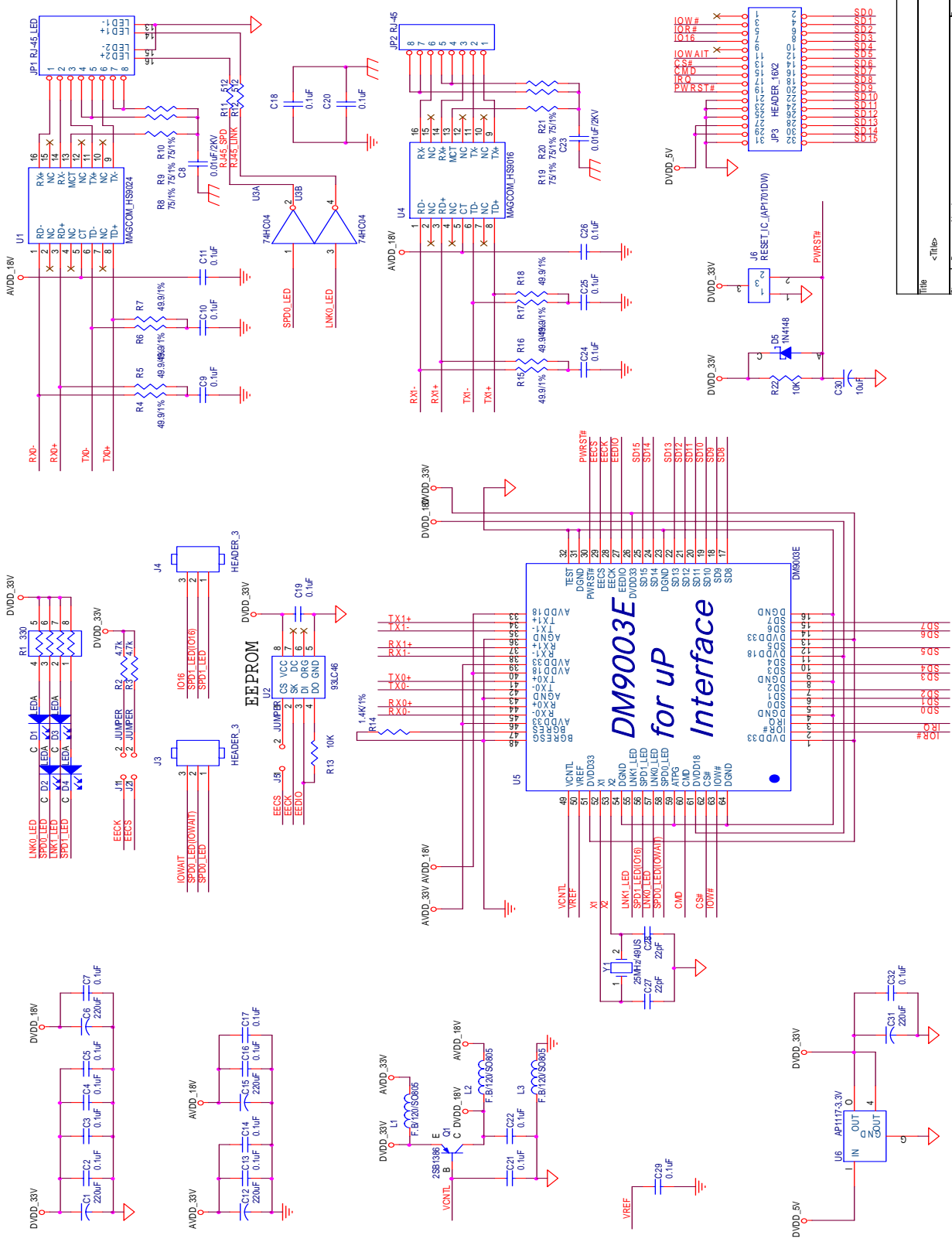


L. 3.3V TO 1.8V Transistor:

The reference circuit of 3.3V to 1.8V is shown below. The DM9003 pin 49 (VCNTL) controls Transistor (2SB1386) for 1.8V Voltage output.



Reference circuit:



Title	<Title>
She	Document Number
B	<Doc>
Date	Wednesday, November 22, 2006
Sheet	1 of 1
Rev	<Rev Code>