TICE59

Hardware User's Manual

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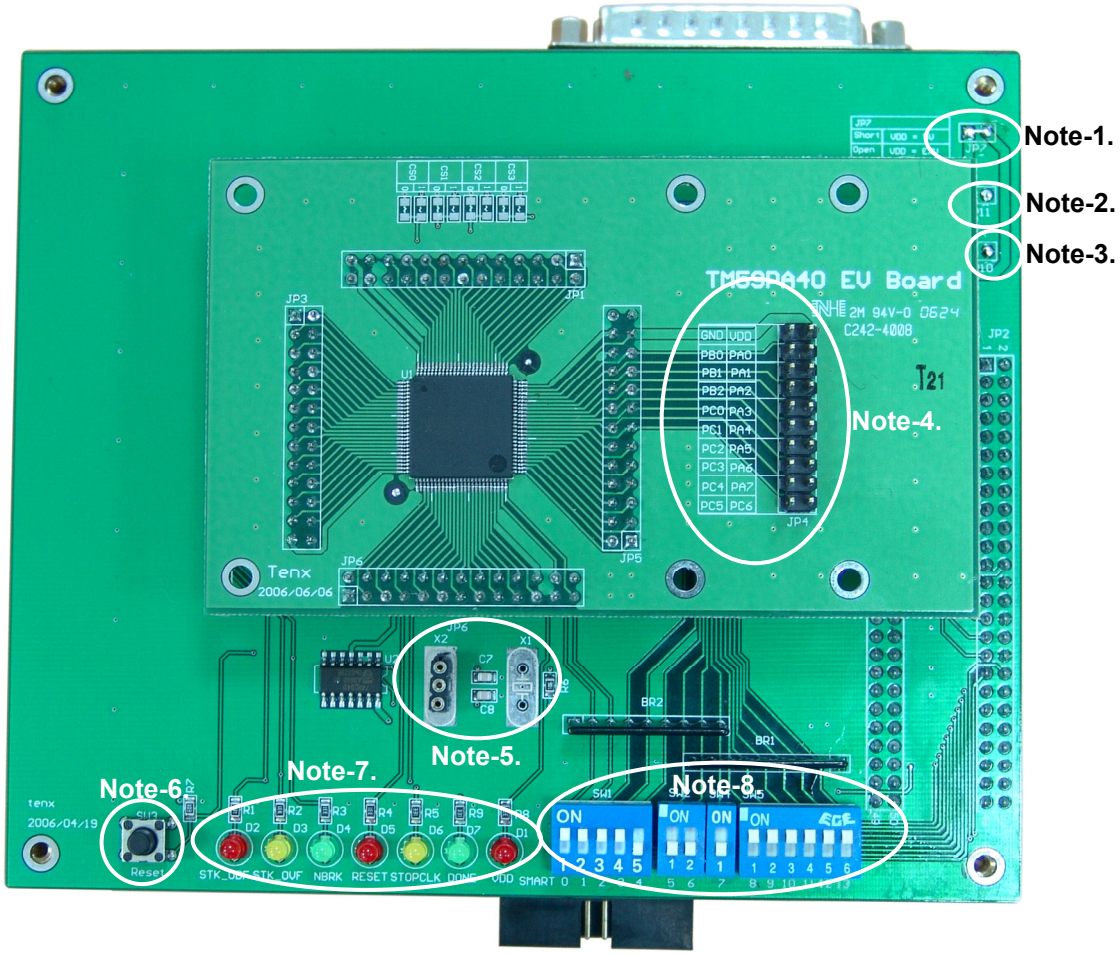
1. TICE 59 Supply IC Type

- TM59PA40

2. TICE59 Hardware Description

2-1. TOP Figure Description

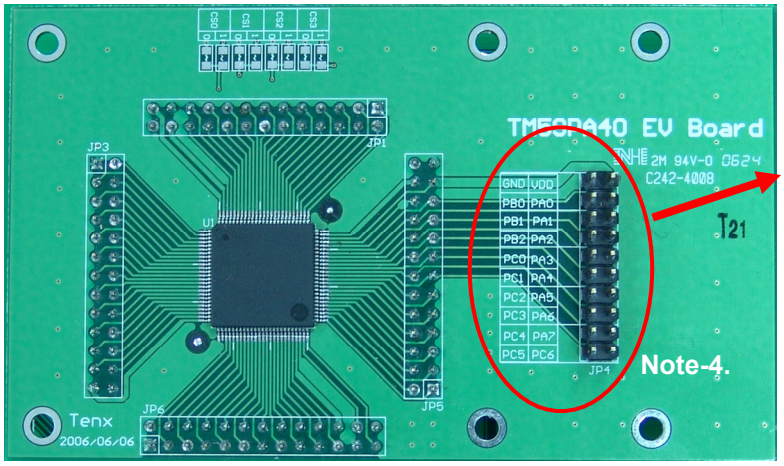


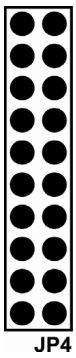
Note-1. **JP7:** NO USE.

Note-2. **JP11:** NO USE.

Note-3. **JP10:** NO USE.

Note-4. JP4：IO Port of TM59PA40.



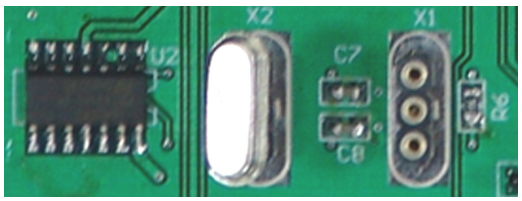


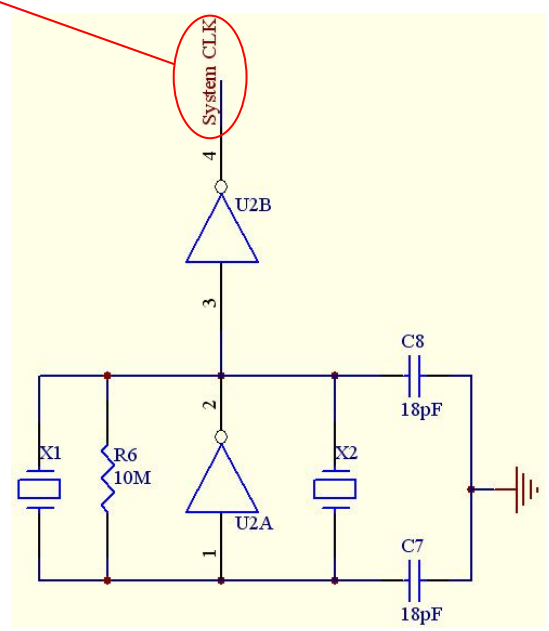
(JP4 Pin Description)

GND	VDD
PB0	PA0
PB1	PA1
PB2	PA2
PC0	PA3
PC1	PA4
PC2	PA5
PC3	PA6
PC4	PA7
PC5	PC6

Note-5. X1, X2: 1MHz to 12MHz External Crystal.

- The execution frequency of TICE59 programming comes from external crystal/ceramic oscillator frequency, and it's System CLK。





Note-6. SW3: External Reset.

Note-7. D2, D3, D4, D5, D6, D7, D1.
(Arrange from left to right.)

(1) STK_UDF: Indication of Stack Underflow.
(2) STK_OVF: Indication of Stack Overflow.
(3) NBRK: ICE in Break State.
(4) RESET: ICE Reset.
(5) STOPCLK: Activate at power down mode.
(6) DONE: Download FPGA File OK.
(7) VDD: ICE Power.

Note-8. SW1, SW2, SW4, SW5. *(Arrange from left to right.)*

- System Config Register:

(1) SW1: LVR Level Selection Bit

SW1					
B1	B2	B3	B4	B5	LVR Level Selection Bit
1	0	0	1	1	2.0V
0	1	0	1	1	2.3V
1	0	0	0	1	3.0V
1	1	1	1	0	3.9V

(2) SW2: Clock Source Selection Bit

SW2		
B1	B2	Clock Source Selection Bit
0	0	External crystal/ceramic oscillator
1	0	External RC
0	1	Internal RC (0.5MHz in Vdd = 5V)
1	1	Internal RC (3.2MHz in Vdd = 5V)
★ The execution frequency of TICE59 programming comes from external crystal/ceramic oscillator frequency. ★ COL systematic frequency output comes from IC Xin and Xout crystal/ceramic oscillator frequency pins. It's NOT the execution frequency of TICE59 programming.		

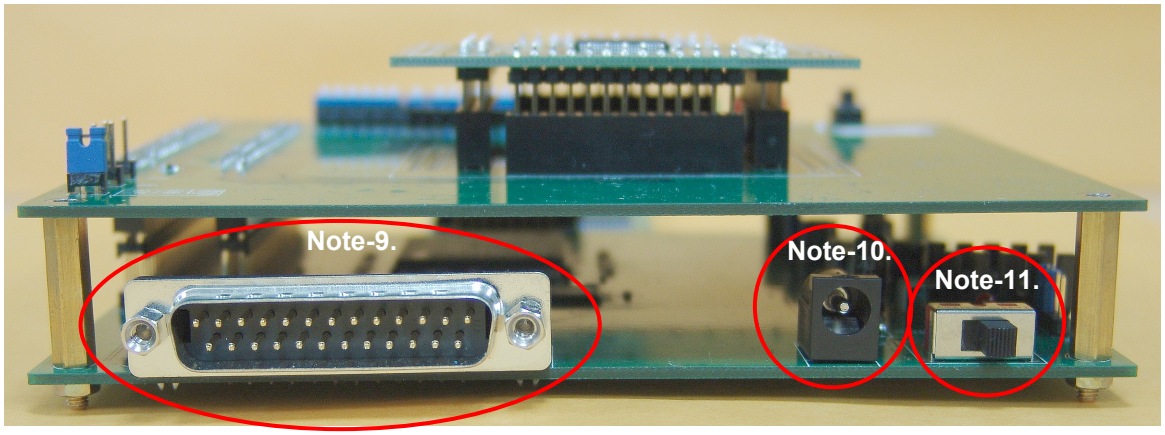
(3) SW4: Reserve

SW4	
B1	Reserve

(4) SW5: EPROM Protect Bit (B6)

SW5						
B1	B2	B3	B4	B5	B6	
1	1	1	1	1	0	EPROM Protect Enable
1	1	1	1	1	1	EPROM Protect Disable
★ Bit 1 ~ 5 Not Used (Must be set to 1)						

2-2. Side Figure Description

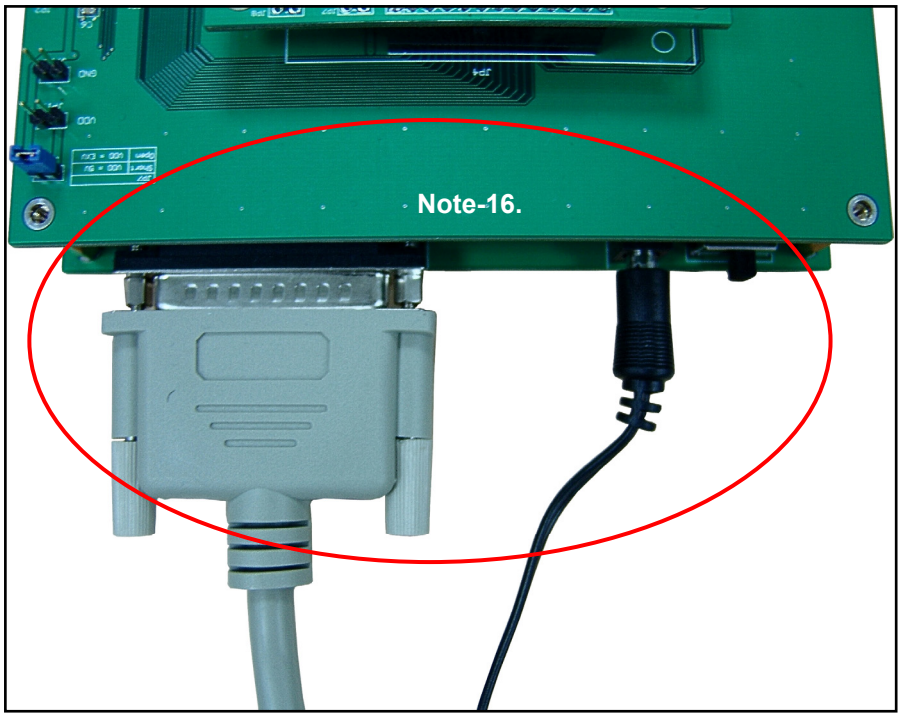


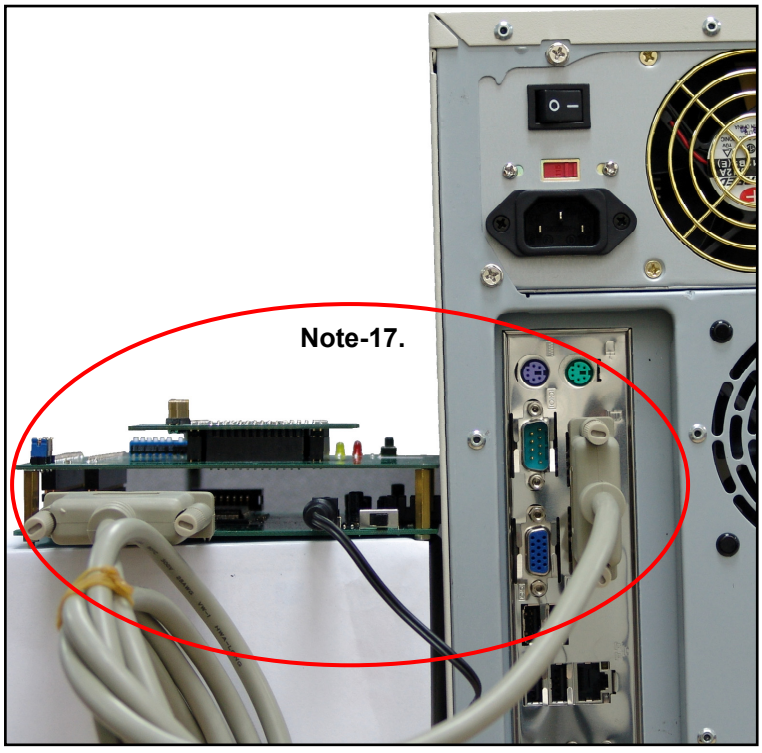
Note-9. Parallel port for connecting with PC.

Note-10. DC_IN: 9V.

Note-11. TICE59 Hardware Power Switch.

3. Connecting with TICE59 and PC





Note-16. and Note-17. Refer to the previous figures to connect TICE59 with PC.