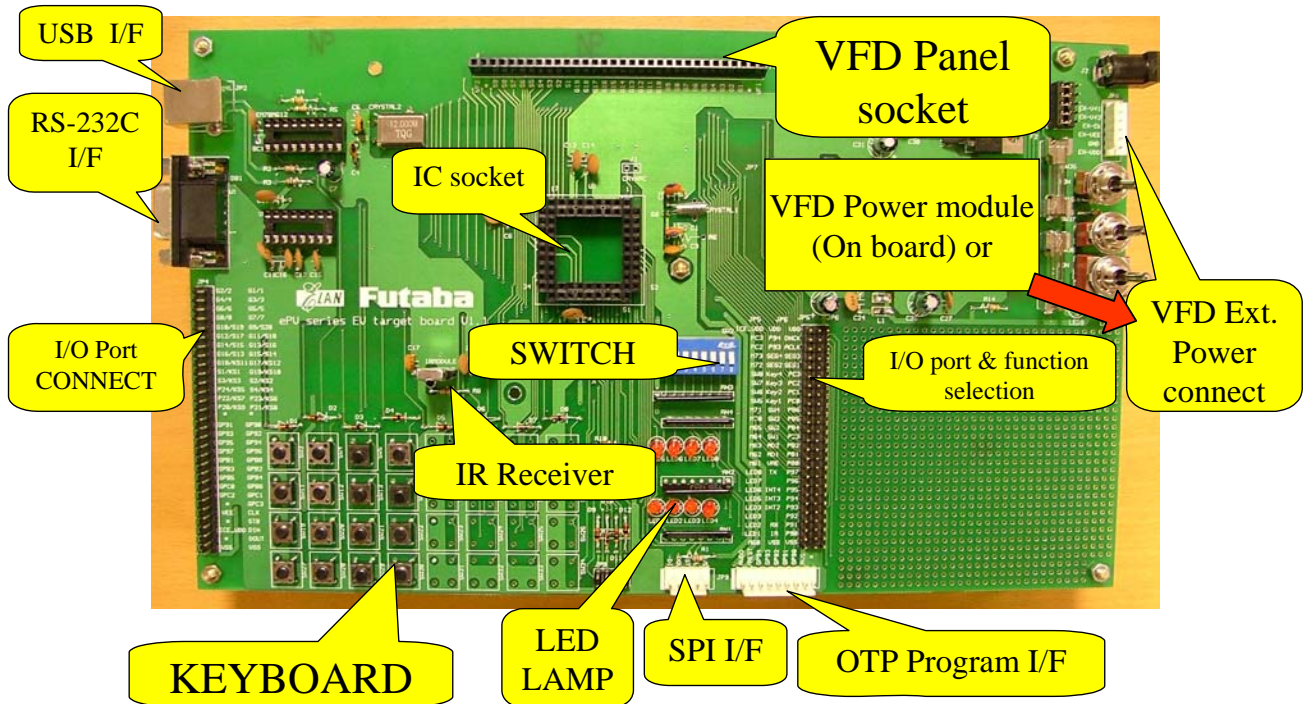


ePVP Series Target Board User Manual (V2.1)

1. Apply to the development board of series IC number

ALL ePVP Series IC ex. ePVP6300, ePVP6200 ,ePV6316, ePVP6810



2. Package List:

1. ePVP Series Target Board * 1
2. DC 15V-0.8A Power Adapter * 1
3. User Guide * 1
4. VFD Socket PCB Board * 1
5. LQFP 64pin 14*14 Socket PCB for ePVP Series Target Board * 1
6. QFP 52pin 14*14 Socket PCB for ePVP Series Target Board * 1
7. ePVP6300/ePVP6200(14*14) IC Socket PCB for ePVP Series Target Board * 2

3. Hardware Connection:

8. Connect ICE signal cable from ELAN ICE to ePVP Series Target board.
9. **Power up the VDD pin of the simulator first, and then VEE pin.**
10. Plug in 32.768KHz crystal.
11. Connect RS232 DB9 connector to get signal from PC.
12. Plug IR module to receive signal from IR remote controller.
13. Connect 15V-0.8A-power cable to **Power Jack**. And remember to set **J3** at pin1-2 position, **J4** at pin1-2 position, **J5** at pin1-2 position, **J6** at pin1-2 position , **J7** at pin1-2 position



	on the board Power connect of power supply module	Power connect on the board	external power supply module Power connect
J3	Ps-Vf1	Filament voltage 1	Ext- Vf2
J4	Ps-Vf2	Filament voltage 2	Ext- Vf2
J5	Ps-EK	EK	Ext-EK
J6	Ps-VEE	VEE	Ext- VEE
J7	Ps-VDD	VDD	Ext- VDD

- 14 Power switch
- 14-1 SW35: Filament voltage switch
- 14-2 SW36 VEE power switch
- 14-3 SW37 VDD and VEE power switch

4. ePVP series IC socket pin assignment contrast with ePVP series target board

Target board	GRID1	GRIDID2	GRIDID3	GRIDID4	GRIDID5	GRIDID6	GRIDID7
ePVP6100	GRID1	GRID2	GRID3	GRID4	GRID5	GRID6	GRID7
ePVP6200							
ePVP6300							
ePV6316							
ePVP6810	X	X	GRID1	GRID2	GRID3	GRID4	X
Target board	GRID8	GRID9	GRID10	GRID11	GRID12	GRID13	GRID14
ePVP6100	GRID8	GRID9	GRID10/SEG19	GRID11/SEG18	GRID12/SEG17	GRID13/SEG16	GRID14/SEG15
ePVP6200							
ePVP6300							
ePV6316							
ePVP6810	X	GRID5	GRID6	GRID7	GRID8	GRID9	GRID10/SEG9
Target board	GRID15	GRID16	GRID17	GRID18	GRID19	SEG9	SEG8
ePVP6100	GRID15/SEG14	GRID16/SEG13	GRID17/SEG12	SEG11	GRID19/SEG10	SEG9	SEG8
ePVP6200							
ePVP6300							
ePV6316							
ePVP6810	X	X	GRID11/SEG8	GRID12/SEG7	GRID13/SEG6	SEG5	X
Target board	SEG7	SEG6	SEG5	SEG4	SEG3	SEG2	SEG1
ePVP6100	SEG7	SEG6	SEG5	SEG4	SEG3	SEG2	SEG1
ePVP6200							
ePVP6300							
ePV6316							
ePVP6810	X	X	X	SEG4	SEG3	SEG2	SEG1

5. Hardware Configuration:

Sockets:

U1:ePVP Series IC socket

J11: VFD socket

JP7: on board power module socket

IR Module: IR Module JP6: PSM IC power module socket

Connector Pins:

JP1: SPI Interface connector

JP2:USB CONNECT: B type USB connector

JP3: ePVP Series IC OTP Writer program connector

JP4 ICE CONNECT: ePVP pm-board I/O bus connector

DB1 UART CONNECT: RS232 connector

JP5/JP6: ePVP GPIO , USB driver EM78612 GPIO and application function selection connector

JP8: External power module connector

JP9: Enlarge to use External 4*4 key matrix connector

J1 : Crystal Oscillator/ RC Oscillator pin option select connector

SW1 : on board ePVP series IC system reset button

SW2: 1 * 8 DIP Switch

LED:

LED1~LED8: Application LED

LED9 : Power indicator of VDD

LED10 : Power indicator of VEE

6. I/O application connect

No.		J5	J6		
1	VDD of PM board	ICE_VDD	VDD	VDD	
2	ePVP6100 program	PC3	DNCK	P94	ePVP6100 program
3	ePVP6100 program	PC2	ACLK	P93	ePVP6100 program
4	EM78M612 GPIO 7,3	M73	SEG3	SEG4	HV output / General input
5	EM78M612 GPIO 7,2	M72	SEG1	SEG2	HV output / General input
6	DIP switch channel8	SW8	PC3	KEY4	KEY matrix input
7	DIP switch channel7	SW7	PC2	KEY3	KEY matrix input
8	DIP switch channel6	SW6	PC1	KEY2	KEY matrix input
9	DIP switch channel5	SW5	PC0	KEY1	KEY matrix input
10	EM78M612 GPIO 7,1	M71	PB6	SW4	DIP switch channel4
11	EM78M612 GPIO 7,0	M70	PB5	SW3	DIP switch channel3
12	EM78M612 GPIO 6,5	M65	PB4	SW2	DIP switch channel2
13	EM78M612 GPIO 6,4	M64	PB3	SW1	DIP switch channel1
14	EM78M612 GPIO 6,3	M63	PB2	NA	NA(ADC AD2)
15	EM78M612 GPIO 6,2	M62	PB1	NA	NA(ADC AD1)
16	EM78M612 GPIO 6,1	M61	PB0	NA	NA(ADC VREF)
17	LED output	LED8	P97	TX	RS-232_TX
18	LED output	LED7	P96	NA	NA(Ext. INT)
19	LED output	LED6	P95	NA	NA(Ext. INT)
20	LED output	LED5	P94	NA	NA(Ext. INT)
21	LED output	LED4	P93	CTX	RS-232_CTX
22	LED output	LED3	P92	RTX	RS-232_RTX
23	LED output	LED2	P91	RX	RS-232_RX
24	LED output	LED1	P90	IR	IR Signal pin
25	EM78M612 GPIO 6,0	M60	VSS	VSS	GND

NOTES :

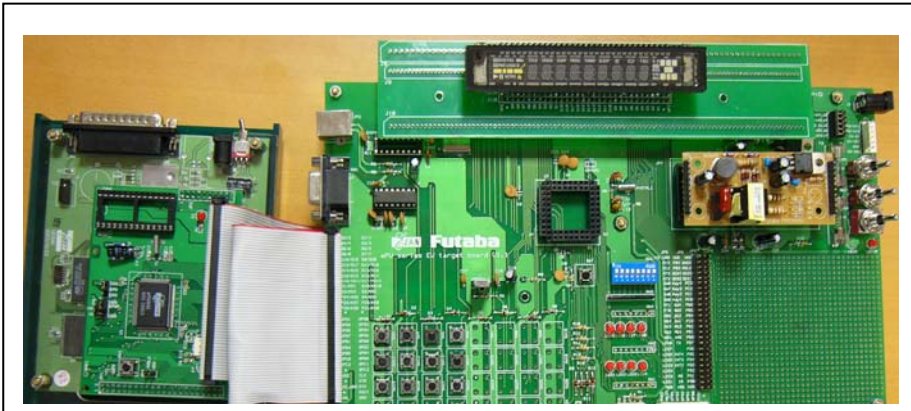
6-1 When programming ePVP6100 IC must to select as follows

DNCK must short with P94,
ACLK must short with P94,
 and P90~P94 Can't connect other applied electric circuits}

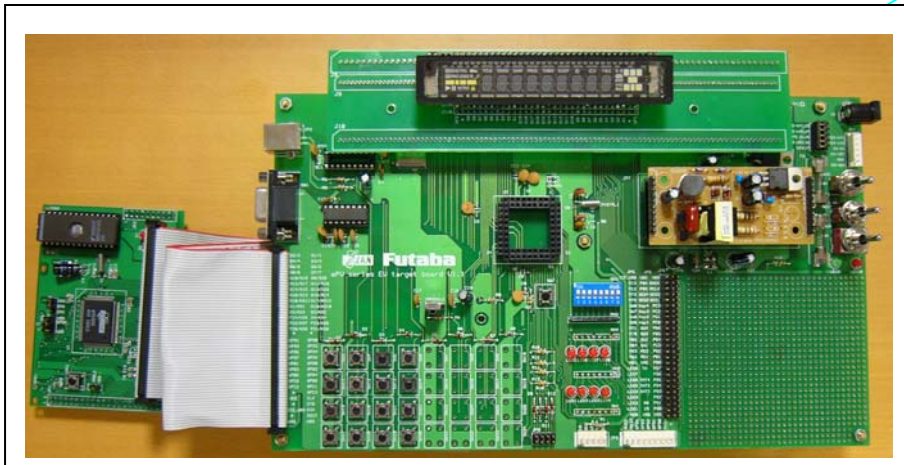
6-2 When programming ePVP series IC must to select as follows

DNCK must short with PC3,
ACLK must short with PC2,
 and P90~P92 ,PC2~PC3 Can't connect other applied electric circuits}

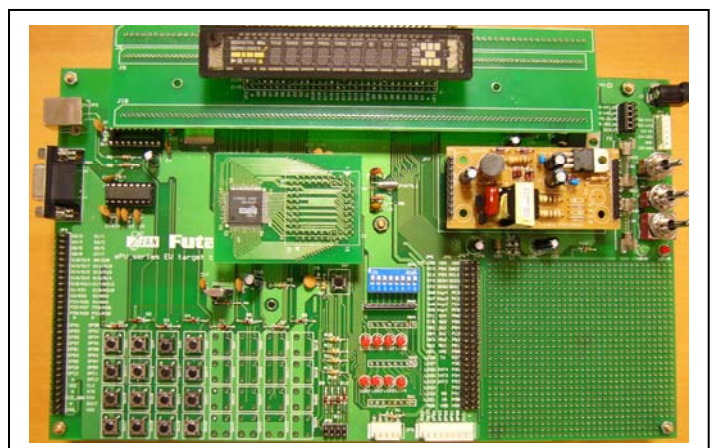
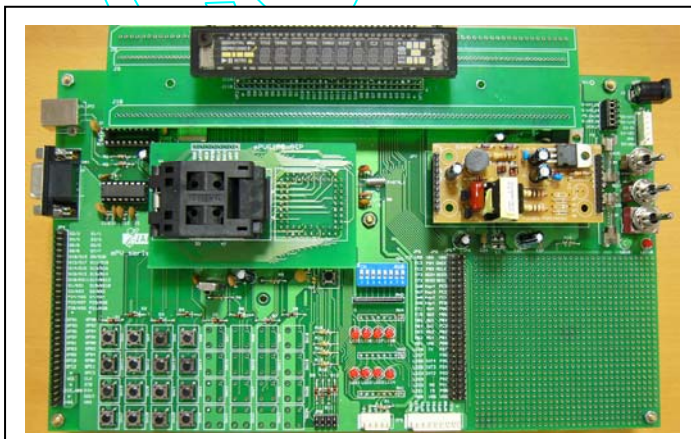
7. Appendix: 7-1 Using the simulator imitates



7-2 Using the PIGGYBACK form imitates (ICE_VDD pin must with VDD pin)

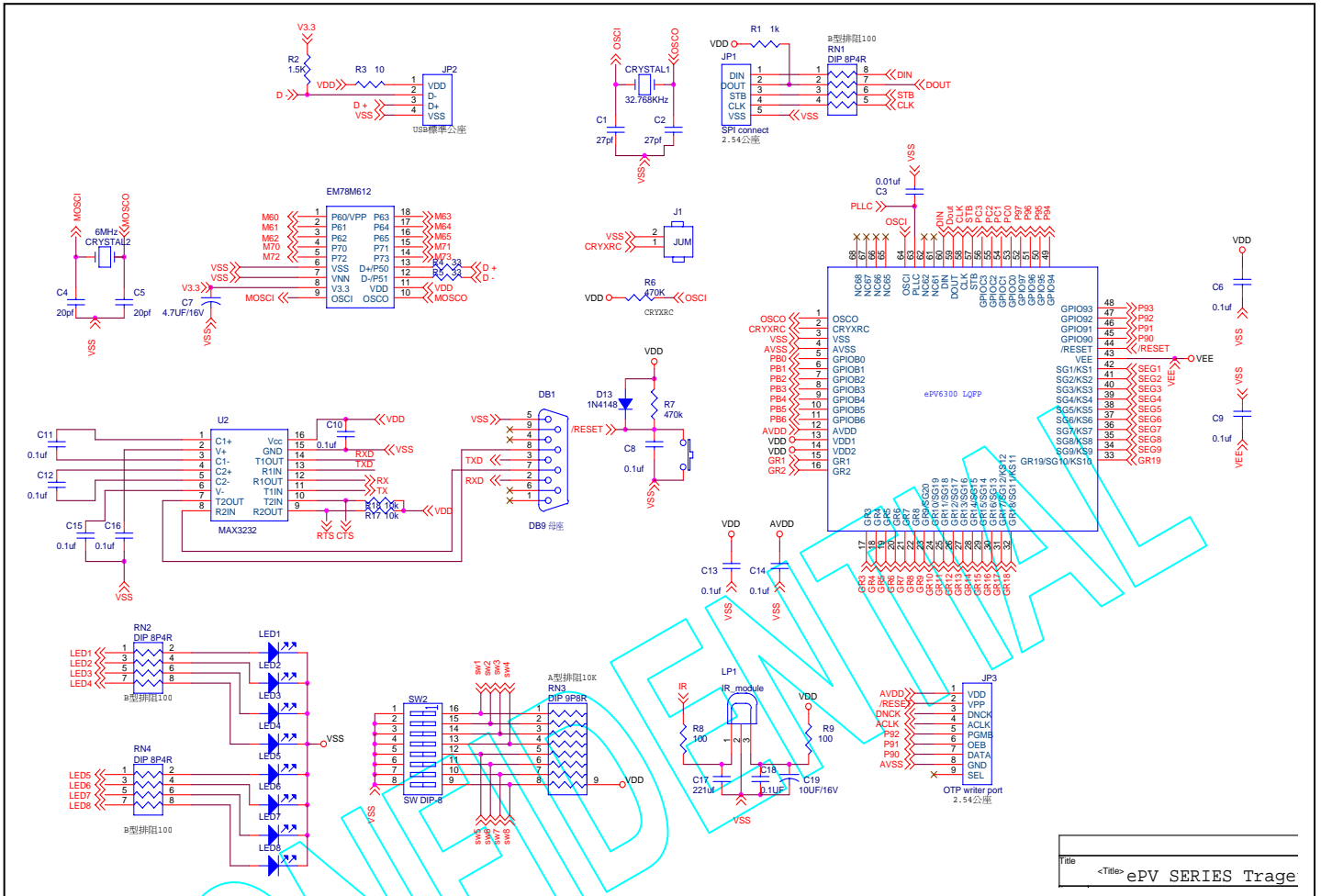


7-3 Can match with the tools of the usage



TRIAL

7-4 APPLICATION CIRCUIT



Title: <Title> ePVP SERIES Trage

