

● FPGA DEVICE

Manufacture	Family	Device
ALTERA	Cyclone IV E	EP4CE30F23C8

● CLOCK

Net Name	ALTERA
FPGA_CLK1	AB11
FPGA_CLK2	AB12
USER_CLK	B11

● RESET

Net Name	ALTERA
RESET_N	E4
FPGA_CLK2	AB12
USER_CLK	B11

● LED

Net Name	ALTERA
LED1	K7
LED2	M8
LED3	N8
LED4	N6
LED5	L8
LED6	M7
LED7	N7
LED8	P7

● BUTTON SWITCH

Net Name	ALTERA
BUTTON_SW1	J3
BUTTON_SW2	M6
BUTTON_SW3	M4
BUTTON_SW4	M3
BUTTON_SW5	M2
BUTTON_SW6	M5
BUTTON_SW7	L7
BUTTON_SW8	H1
BUTTON_SW9	J2
BUTTON_SW*	J1
BUTTON_SW0	L6
BUTTON_SW#	J4

● DIP SWITCH

Net Name	ALTERA
DIP_SW1	U1
DIP_SW2	Y1
DIP_SW3	W2
DIP_SW4	V4
DIP_SW5	Y2
DIP_SW6	AA1
DIP_SW7	W1
DIP_SW8	V3

● 7-SEGMENT 1DIGIT

Net Name	ALTERA
SEG_a	R5
SEG_b	R6
SEG_c	R7
SEG_d	P6
SEG_e	T3
SEG_f	T4
SEG_g	T5
SEG_dp	T7

● 8 ARRAY 7 SEGMENT 8DIGIT

Net Name	ALTERA
SEG_A_COM1	H8
SEG_A_COM2	G5
SEG_A_COM3	F2
SEG_A_COM4	E3
SEG_A_COM5	K8
SEG_A_COM6	J5
SEG_A_COM7	J6
SEG_A_COM8	J7
SEG_A_a	D2
SEG_A_b	C2
SEG_A_c	B2
SEG_A_d	H10
SEG_A_e	J8
SEG_A_f	H5
SEG_A_g	H6
SEG_A_dp	H7

● 16X2 TEXT LCD

Net Name	ALTERA
TLCD_E	D10
TLCD_RS	E9
TLCD_RW	E10
TLCD_D0	F10
TLCD_D1	F8
TLCD_D2	G10
TLCD_D3	G8
TLCD_D4	F9
TLCD_D5	G11
TLCD_D6	G9
TLCD_D7	H11

● PIEZO

Net Name	ALTERA
PIEZO	AB18

● STEP MOTOR

Net Name	ALTERA
STEP_A	V16
STEP_N	T15
STEP_B	R15
STEP_BN	U15
STEP_CNT	AA18

● SERVO MOTOR

Net Name	ALTERA
SERVO	V15

● RS-232

Net Name	ALTERA
UART_TXD	C6
UART_RXD	C7
US_TXD	B3
us_rxd	B4

● FULL COLOR LED

Net Name	ALTERA
F_LED1_BLUE	P1
F_LED1_GREEN	P2
F_LED1_RED	P3
F_LED2_BLUE	U2
F_LED3_GREEN	R1
F_LED2_RED	R2
F_LED3_BLUE	N2
F_LED3_GREEN	N5
F_LED3_RED	M1
F_LED4_BLUE	P4
F_LED4_GREEN	P5
F_LED4_RED	N1