

## DE2보드 핀번호

To	DE2 Location	DE2-70 Location	DE2-115 Location	To	DE2 Location	DE2-70 Location	DE2-115 Location
SW[0]	PIN_N25	PIN_AA23	PIN_AB28	LEDR[0]	PIN_AE23	PIN_AJ6	PIN_G19
SW[1]	PIN_N26	PIN_AB26	PIN_AC28	LEDR[1]	PIN_AF23	PIN_AK5	PIN_F19
SW[2]	PIN_P25	PIN_AB25	PIN_AC27	LEDR[2]	PIN_AB21	PIN_AJ5	PIN_E19
SW[3]	PIN_AE14	PIN_AC27	PIN_AD27	LEDR[3]	PIN_AC22	PIN_AJ4	PIN_F21
SW[4]	PIN_AF14	PIN_AC26	PIN_AB27	LEDR[4]	PIN_AD22	PIN_AK3	PIN_F18
SW[5]	PIN_AD13	PIN_AC24	PIN_AC26	LEDR[5]	PIN_AD23	PIN_AH4	PIN_E18
SW[6]	PIN_AC13	PIN_AC23	PIN_AD26	LEDR[6]	PIN_AD21	PIN_AJ3	PIN_J19
SW[7]	PIN_C13	PIN_AD25	PIN_AB26	LEDR[7]	PIN_AC21	PIN_AJ2	PIN_H19
SW[8]	PIN_B13	PIN_AD24	PIN_AC25	LEDR[8]	PIN_AA14	PIN_AH3	PIN_J17
SW[9]	PIN_A13	PIN_AE27	PIN_AB25	LEDR[9]	PIN_Y13	PIN_AD14	PIN_G17
SW[10]	PIN_N1	PIN_W5	PIN_AC24	LEDR[10]	PIN_AA13	PIN_AC13	PIN_J15
SW[11]	PIN_P1	PIN_V10	PIN_AB24	LEDR[11]	PIN_AC14	PIN_AB13	PIN_H16
SW[12]	PIN_P2	PIN_U9	PIN_AB23	LEDR[12]	PIN_AD15	PIN_AC12	PIN_J16
SW[13]	PIN_T7	PIN_T9	PIN_AA24	LEDR[13]	PIN_AE15	PIN_AB12	PIN_H17
SW[14]	PIN_U3	PIN_L5	PIN_AA23	LEDR[14]	PIN_AF13	PIN_AC11	PIN_F15
SW[15]	PIN_U4	PIN_L4	PIN_AA22	LEDR[15]	PIN_AE13	PIN_AD9	PIN_G15
SW[16]	PIN_V1	PIN_L7	PIN_Y24	LEDR[16]	PIN_AE12	PIN_AD8	PIN_G16
SW[17]	PIN_V2	PIN_L8	PIN_Y23	LEDR[17]	PIN_AD12	PIN_AJ7	PIN_H15
HEX0[0]	PIN_AF10	PIN_AE8	PIN_G18	LEDG[0]	PIN_AE22	PIN_W27	PIN_E21
HEX0[1]	PIN_AB12	PIN_AF9	PIN_F22	LEDG[1]	PIN_AF22	PIN_W25	PIN_E22
HEX0[2]	PIN_AC12	PIN_AH9	PIN_E17	LEDG[2]	PIN_W19	PIN_W23	PIN_E25
HEX0[3]	PIN_AD11	PIN_AD10	PIN_L26	LEDG[3]	PIN_V18	PIN_Y27	PIN_E24
HEX0[4]	PIN_AE11	PIN_AF10	PIN_L25	LEDG[4]	PIN_U18	PIN_Y24	PIN_H21
HEX0[5]	PIN_V14	PIN_AD11	PIN_J22	LEDG[5]	PIN_U17	PIN_Y23	PIN_G20
HEX0[6]	PIN_V13	PIN_AD12	PIN_H22	LEDG[6]	PIN_AA20	PIN_AA27	PIN_G22
HEX1[0]	PIN_V20	PIN_AG13	PIN_M24	LEDG[7]	PIN_Y18	PIN_AA24	PIN_G21
HEX1[1]	PIN_V21	PIN_AE16	PIN_Y22	LEDG[8]	PIN_Y12	PIN_AC14	PIN_F17
HEX1[2]	PIN_W21	PIN_AF16	PIN_W21	CLOCK_27	PIN_D13	PIN_E16	
HEX1[3]	PIN_Y22	PIN_AG16	PIN_W22	CLOCK_50	PIN_N2	PIN_AD15	PIN_Y2
HEX1[4]	PIN_AA24	PIN_AE17	PIN_W25	EXT_CLOCK	PIN_P26	PIN_R29	
HEX1[5]	PIN_AA23	PIN_AF17	PIN_U23	PS2_CLK	PIN_D26	PIN_F24	PIN_G6
HEX1[6]	PIN_AB24	PIN_AD17	PIN_U24	PS2_DAT	PIN_C24	PIN_E24	PIN_H5
HEX2[0]	PIN_AB23	PIN_AE7	PIN_AA25	UART_RXD	PIN_C25	PIN_D21	PIN_G12
HEX2[1]	PIN_V22	PIN_AF7	PIN_AA26	UART_TXD	PIN_B25	PIN_E21	PIN_G9
HEX2[2]	PIN_AC25	PIN_AH5	PIN_Y25	LCD_RW	PIN_K4	PIN_F3	PIN_M1
HEX2[3]	PIN_AC26	PIN_AG4	PIN_W26	LCD_EN	PIN_K3	PIN_E2	PIN_L4
HEX2[4]	PIN_AB26	PIN_AB18	PIN_Y26	LCD_RS	PIN_K1	PIN_F2	PIN_M2
HEX2[5]	PIN_AB25	PIN_AB19	PIN_W27	LCD_DATA[0]	PIN_J1	PIN_E1	PIN_L3
HEX2[6]	PIN_Y24	PIN_AE19	PIN_W28	LCD_DATA[1]	PIN_J2	PIN_E3	PIN_L1
HEX3[0]	PIN_Y23	PIN_P6	PIN_V21	LCD_DATA[2]	PIN_H1	PIN_D2	PIN_L2
HEX3[1]	PIN_AA25	PIN_P4	PIN_U21	LCD_DATA[3]	PIN_H2	PIN_D3	PIN_K7
HEX3[2]	PIN_AA26	PIN_N10	PIN_AB20	LCD_DATA[4]	PIN_J4	PIN_C1	PIN_K1
HEX3[3]	PIN_Y26	PIN_N7	PIN_AA21	LCD_DATA[5]	PIN_J3	PIN_C2	PIN_K2
HEX3[4]	PIN_Y25	PIN_M8	PIN_AD24	LCD_DATA[6]	PIN_H4	PIN_C3	PIN_M3
HEX3[5]	PIN_U22	PIN_M7	PIN_AF23	LCD_DATA[7]	PIN_H3	PIN_B2	PIN_M5
HEX3[6]	PIN_W24	PIN_M6	PIN_Y19	LCD_ON	PIN_L4	PIN_F1	PIN_L5
HEX4[0]	PIN_U9	PIN_P1	PIN_AB19	LCD_BLON	PIN_K2	PIN_G3	PIN_L6
HEX4[1]	PIN_U1	PIN_P2	PIN_AA19	VGA_R[0]	PIN_C8	PIN_D23	PIN_E12
HEX4[2]	PIN_U2	PIN_P3	PIN_AG21	VGA_R[1]	PIN_F10	PIN_E23	PIN_E11
HEX4[3]	PIN_T4	PIN_N2	PIN_AH21	VGA_R[2]	PIN_G10	PIN_E22	PIN_D10
HEX4[4]	PIN_R7	PIN_N3	PIN_AE19	VGA_R[3]	PIN_D9	PIN_D22	PIN_F12
HEX4[5]	PIN_R6	PIN_M1	PIN_AF19	VGA_R[4]	PIN_C9	PIN_H21	PIN_G10
HEX4[6]	PIN_T3	PIN_M2	PIN_AE18	VGA_R[5]	PIN_A8	PIN_G21	PIN_J12

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HEX5[0]	PIN_T2	PIN_M3	PIN_AD18	VGA_R[6]	PIN_H11	PIN_H20	PIN_H8
HEX5[1]	PIN_P6	PIN_L1	PIN_AC18	VGA_R[7]	PIN_H12	PIN_F20	PIN_H10
HEX5[2]	PIN_P7	PIN_L2	PIN_AB18	VGA_R[8]	PIN_F11	PIN_E20	
HEX5[3]	PIN_T9	PIN_L3	PIN_AH19	VGA_R[9]	PIN_E10	PIN_G20	
HEX5[4]	PIN_R5	PIN_K1	PIN_AG19	VGA_G[0]	PIN_B9	PIN_A10	PIN_G8
HEX5[5]	PIN_R4	PIN_K4	PIN_AF18	VGA_G[1]	PIN_A9	PIN_B11	PIN_G11
HEX5[6]	PIN_R3	PIN_K5	PIN_AH18	VGA_G[2]	PIN_C10	PIN_A11	PIN_F8
HEX6[0]	PIN_R2	PIN_H6	PIN_AA17	VGA_G[3]	PIN_D10	PIN_C12	PIN_H12
HEX6[1]	PIN_P4	PIN_H4	PIN_AB16	VGA_G[4]	PIN_B10	PIN_B12	PIN_C8
HEX6[2]	PIN_P3	PIN_H7	PIN_AA16	VGA_G[5]	PIN_A10	PIN_A12	PIN_B8
HEX6[3]	PIN_M2	PIN_H8	PIN_AB17	VGA_G[6]	PIN_G11	PIN_C13	PIN_F10
HEX6[4]	PIN_M3	PIN_G4	PIN_AB15	VGA_G[7]	PIN_D11	PIN_B13	PIN_C9
HEX6[5]	PIN_M5	PIN_F4	PIN_AA15	VGA_G[8]	PIN_E12	PIN_B14	
HEX6[6]	PIN_M4	PIN_E4	PIN_AC17	VGA_G[9]	PIN_D12	PIN_A14	
HEX7[0]	PIN_L3	PIN_K3	PIN_AD17	VGA_B[0]	PIN_J13	PIN_B16	PIN_B10
HEX7[1]	PIN_L2	PIN_J1	PIN_AE17	VGA_B[1]	PIN_J14	PIN_C16	PIN_A10
HEX7[2]	PIN_L9	PIN_J2	PIN_AG17	VGA_B[2]	PIN_F12	PIN_A17	PIN_C11
HEX7[3]	PIN_L6	PIN_H1	PIN_AH17	VGA_B[3]	PIN_G12	PIN_B17	PIN_B11
HEX7[4]	PIN_L7	PIN_H2	PIN_AF17	VGA_B[4]	PIN_J10	PIN_C18	PIN_A11
HEX7[5]	PIN_P9	PIN_H3	PIN_AG18	VGA_B[5]	PIN_J11	PIN_B18	PIN_C12
HEX7[6]	PIN_N9	PIN_G1	PIN_AA14	VGA_B[6]	PIN_C11	PIN_B19	PIN_D11
KEY[0]	PIN_G26	PIN_T29	PIN_M23	VGA_B[7]	PIN_B11	PIN_A19	PIN_D12
KEY[1]	PIN_N23	PIN_T28	PIN_M21	VGA_B[8]	PIN_C12	PIN_C19	
KEY[2]	PIN_P23	PIN_U30	PIN_N21	VGA_B[9]	PIN_B12	PIN_D19	
KEY[3]	PIN_W26	PIN_U29	PIN_R24	VGA_CLK	PIN_B8	PIN_D24	PIN_A12
				VGA_BLANK	PIN_D6	PIN_C15	PIN_F11
				VGA_HS	PIN_A7	PIN_J19	PIN_G13
				VGA_VS	PIN_D8	PIN_H19	PIN_C13
				VGA_SYNC	PIN_B7	PIN_B15	PIN_C10