

Periférico	Nome do Pino	Pino	I/O Bank	VREF Group
Entrada PS/2	PS_CLOCK	PIN_119	7	B7_N0
Entrada PS/2	PS_DATA	PIN_120	7	B7_N0
UART	UART_TXD	PIN_114	7	B7_N0
UART	UART_RXD	PIN_115	7	B7_N0
SDRAM/DQ	SDRAM_DQ[0]	PIN_28	2	B2_N0
SDRAM/DQ	SDRAM_DQ[1]	PIN_30	2	B2_N0
SDRAM/DQ	SDRAM_DQ[2]	PIN_31	2	B2_N0
SDRAM/DQ	SDRAM_DQ[3]	PIN_32	2	B2_N0
SDRAM/DQ	SDRAM_DQ[4]	PIN_33	2	B2_N0
SDRAM/DQ	SDRAM_DQ[5]	PIN_34	2	B2_N0
SDRAM/DQ	SDRAM_DQ[6]	PIN_38	3	B3_N0
SDRAM/DQ	SDRAM_DQ[7]	PIN_39	3	B3_N0
SDRAM/DQ	SDRAM_DQ[8]	PIN_54	4	B4_N0
SDRAM/DQ	SDRAM_DQ[9]	PIN_53	3	B3_N0
SDRAM/DQ	SDRAM_DQ[10]	PIN_52	3	B3_N0
SDRAM/DQ	SDRAM_DQ[11]	PIN_51	3	B3_N0
SDRAM/DQ	SDRAM_DQ[12]	PIN_50	3	B3_N0
SDRAM/DQ	SDRAM_DQ[13]	PIN_49	3	B3_N0
SDRAM/DQ	SDRAM_DQ[14]	PIN_46	3	B3_N0
SDRAM/DQ	SDRAM_DQ[15]	PIN_44	3	B3_N0
SDRAM/A	SDRAM_A[0]	PIN_76	5	B5_N0
SDRAM/A	SDRAM_A[1]	PIN_77	5	B5_N0
SDRAM/A	SDRAM_A[2]	PIN_80	5	B5_N0
SDRAM/A	SDRAM_A[3]	PIN_83	5	B5_N0
SDRAM/A	SDRAM_A[4]	PIN_68	4	B4_N0
SDRAM/A	SDRAM_A[5]	PIN_67	4	B4_N0
SDRAM/A	SDRAM_A[6]	PIN_66	4	B4_N0
SDRAM/A	SDRAM_A[7]	PIN_65	4	B4_N0
SDRAM/A	SDRAM_A[8]	PIN_64	4	B4_N0
SDRAM/A	SDRAM_A[9]	PIN_60	4	B4_N0
SDRAM/A	SDRAM_A[10]	PIN_75	5	B5_N0
SDRAM/A	SDRAM_A[11]	PIN_59	4	B4_N0
SDRAM/BS	SDRAM_BS[0]	PIN_73	5	B5_N0
SDRAM/BS	SDRAM_BS[1]	PIN_74	5	B5_N0
SDRAM/DQM	SDRAM_DQM[0]	PIN_42	3	B3_N0
SDRAM/DQM	SDRAM_DQM[1]	PIN_55	4	B4_N0
SDRAM	SDRAM_CKE	PIN_58	4	B4_N0
SDRAM	SDRAM_CLK	PIN_43	3	B3_N0
SDRAM	SDRAM_CS	PIN_72	4	B4_N0
SDRAM	SDRAM_RAS	PIN_71	4	B4_N0
SDRAM	SDRAM_CAS	PIN_70	4	B4_N0
SDRAM	SDRAM_WE	PIN_69	4	B4_N0

Periférico	Nome do Pino	Direção	Pino	I/O Bank	VREF Group	I/O Standard
Geral	FPGA_CLK	Input	PIN_23	1	B1_N0	2.5 V
Geral	FPGA_RST		PIN_25	2	B2_N0	
Botões/Entrada	KEY[0]	Input	PIN_88	5	B5_N0	2.5 V
Botões/Entrada	KEY[1]	Input	PIN_89	5	B5_N0	2.5 V
Botões/Entrada	KEY[2]	Input	PIN_90	6	B6_N0	2.5 V
Botões/Entrada	KEY[3]	Input	PIN_91	6	B6_N0	2.5 V
Buzzer/Saída	FPGA_BUZZER	Output	PIN_110	7	B7_N0	2.5 V
LED/Saída	LED[0]	Output	PIN_87	5	B5_N0	2.5 V
LED/Saída	LED[1]	Output	PIN_86	5	B5_N0	2.5 V
LED/Saída	LED[2]	Output	PIN_85	5	B5_N0	2.5 V
LED/Saída	LED[3]	Output	PIN_84	5	B5_N0	2.5 V
Barramento I²C	FPGA_SCL		PIN_112	7	B7_N0	
Barramento I²C	FPGA_SDA		PIN_113	7	B7_N0	
Barramento I²C	I2C_SCL		PIN_99	6	B6_N0	
Barramento I²C	I2C_SDA		PIN_98	6	B6_N0	
Receptor IR	IR		PIN_100	6	B6_N0	
Display 7 Segs.	DIG[1]		PIN_133	8	B8_N0	
Display 7 Segs.	DIG[2]		PIN_135	8	B8_N0	
Display 7 Segs.	DIG[3]		PIN_136	8	B8_N0	
Display 7 Segs.	DIG[4]		PIN_137	8	B8_N0	
Display 7 Segs.	SEG[0]		PIN_128	8	B8_N0	
Display 7 Segs.	SEG[1]		PIN_121	7	B7_N0	
Display 7 Segs.	SEG[2]		PIN_125	7	B7_N0	
Display 7 Segs.	SEG[3]		PIN_129	8	B8_N0	
Display 7 Segs.	SEG[4]		PIN_132	8	B8_N0	
Display 7 Segs.	SEG[5]		PIN_126	7	B7_N0	
Display 7 Segs.	SEG[6]		PIN_124	7	B7_N0	
Display 7 Segs.	SEG[7]		PIN_127	7	B7_N0	
Saída VGA	VGA_HSYNC		PIN_101	6	B6_N0	
Saída VGA	VGA_VSYNC		PIN_103	6	B6_N0	
Saída VGA	VGA_B		PIN_104	6	B6_N0	
Saída VGA	VGA_G		PIN_105	6	B6_N0	
Saída VGA	VGA_R		PIN_106	6	B6_N0	
Display LCD	LCD_RS		PIN_141	8	B8_N0	
Display LCD	LCD_RW		PIN_138	8	B8_N0	
Display LCD	LCD_E		PIN_143	8	B8_N0	
Display LCD	LCD_D[0]		PIN_142	8	B8_N0	
Display LCD	LCD_D[1]		PIN_1	1	B1_N0	
Display LCD	LCD_D[2]		PIN_144	8	B8_N0	
Display LCD	LCD_D[3]		PIN_3	1	B1_N0	
Display LCD	LCD_D[4]		PIN_2	1	B1_N0	
Display LCD	LCD_D[5]		PIN_10	1	B1_N0	
Display LCD	LCD_D[6]		PIN_7	1	B1_N0	
Display LCD	LCD_D[7]		PIN_11	1	B1_N0	

I/O Bank	Disponíveis	Usados	Não Usados
Bank 1	11	7	4
Bank 2	8	7	1
Bank 3	22	11	0
Bank 4	24	14	0
Bank 5	13	13	0
Bank 6	10	10	0
Bank 7	13	12	1
Bank 8	12	12	0

Recursos do CI EP4CE6E22C8			
Recurso	Total	Usados	Não Usados
Pinos I/O	92	86	6
Pinos DIFF IN	54	50	4
Pinos DIFF OUT	51	48	3
Pinos DQ	17	17	0
Pinos DQS	12	12	0
Pinos Clock	7	6	1
Pinos PLL	4	4	0
PLL Globais	2	0	2