

**RZ-EasyFPGA A2.2 - Altera Cyclone IV - EP4CE6E22C8N**

FPGA_RESET	25
FPGA_CLK	23

Keys	Pino
KEY[0]	88
KEY[1]	89
KEY[2]	90
KEY[3]	91

Os botões e os DIP estão ligados juntos!

Botões/DIP são acionados com "0"  
(LOW ou BAIXO)

Dial Switch	Pino
ckey1	88
ckey2	89
ckey3	90
ckey4	91

LED	Pino
LED[0]	87
LED[1]	86
LED[2]	85
LED[3]	84

UART	Pino
UART_TXD	114
UART_RXD	115

I <sup>2</sup> C	Pino
FPGA_SCL	112
FPGA_SDA	113
I2C_SCL	99
I2C_SDA	98

Receptor IR	Pino
IR	100

SDRAM	Pino
SDRAM_DQ[0]	28
SDRAM_DQ[1]	30
SDRAM_DQ[2]	31
SDRAM_DQ[3]	32
SDRAM_DQ[4]	33
SDRAM_DQ[5]	34
SDRAM_DQ[6]	38
SDRAM_DQ[7]	39
SDRAM_DQ[8]	54
SDRAM_DQ[9]	53
SDRAM_DQ[10]	52
SDRAM_DQ[11]	51
SDRAM_DQ[12]	50
SDRAM_DQ[13]	49
SDRAM_DQ[14]	46
SDRAM_DQ[15]	44
SDRAM_A[0]	76
SDRAM_A[1]	77
SDRAM_A[2]	80
SDRAM_A[3]	83
SDRAM_A[4]	68
SDRAM_A[5]	67
SDRAM_A[6]	66
SDRAM_A[7]	65
SDRAM_A[8]	64
SDRAM_A[9]	60
SDRAM_A[10]	75
SDRAM_A[11]	59
SDRAM_BS[0]	73
SDRAM_BS[1]	74
SDRAM_DQM[0] / LDQM	42
SDRAM_DQM[1] / UDQM	55
SDRAM_CKE	58
SDRAM_CLK	43
SDRAM_CS	72
SDRAM_RAS	71
SDRAM_CAS	70
SDRAM_WE	69

Tensão Lógica: **3,3V LVTTTL**  
Corrente GPIO: **8mA**

VGA	Pino
VGA_HSYNC	101
VGA_VSYNC	103
VGA_B	104
VGA_G	105
VGA_R	106

LCD 1602/12864	Pino
LCD_RS	141
LCD_RW	138
LCD_E	143
LCD_D[0]	142
LCD_D[1]	1
LCD_D[2]	144
LCD_D[3]	3
LCD_D[4]	2
LCD_D[5]	10
LCD_D[6]	7
LCD_D[7]	11

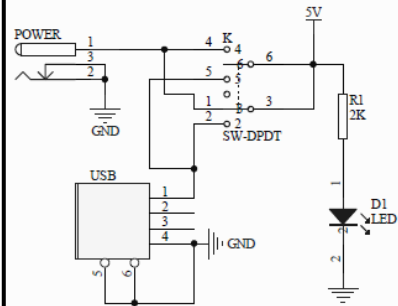
Displ. 7 Segs	Pino
DIG[0]	133
DIG[1]	135
DIG[2]	136
DIG[3]	137
SEG[0]	128
SEG[1]	121
SEG[2]	125
SEG[3]	129
SEG[4]	132
SEG[5]	126
SEG[6]	124
SEG[7]	127

PS2	Pino
PS_CLOCK	119
PS_DATA	120

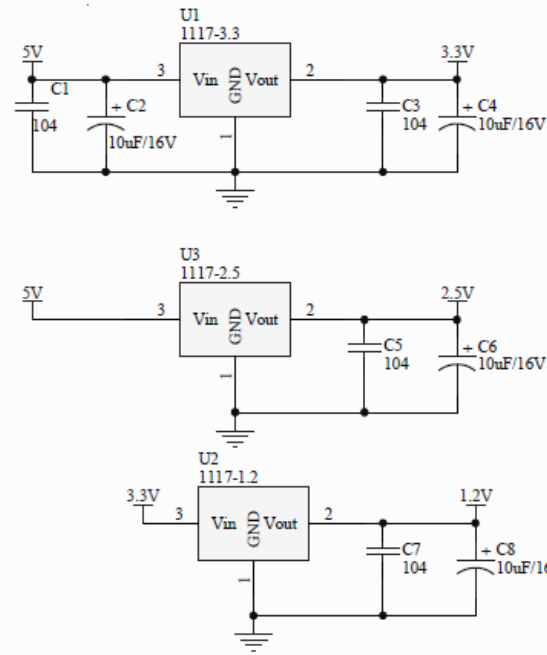
Buzzer	Pino
FPGA_BUZZER	110

## Esquemas Elétricos – Kit RZ-EasyFPGA A2.2

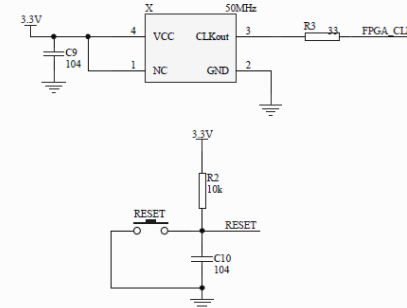
### Alimentação



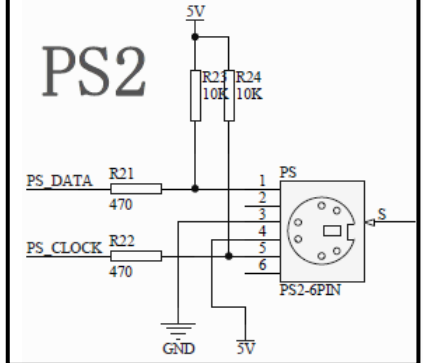
### Alimentação 3.3V, 2.5V, 1.2V



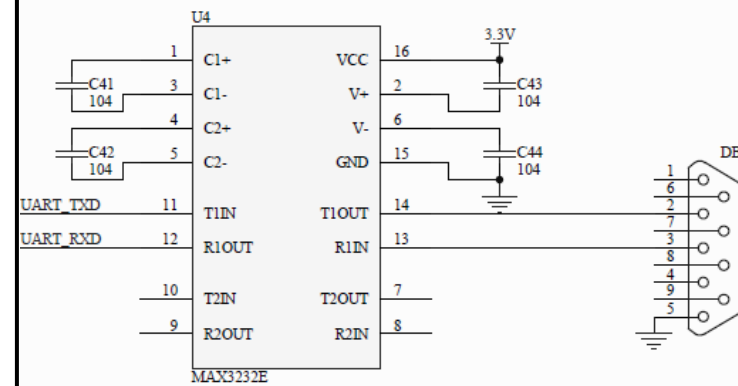
### Cristal oscilador e Reset



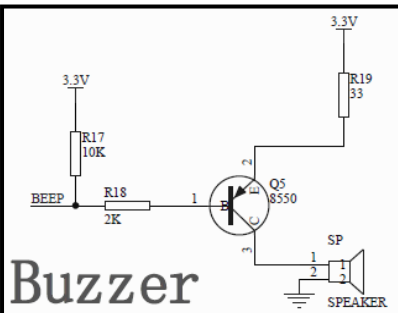
### PS2



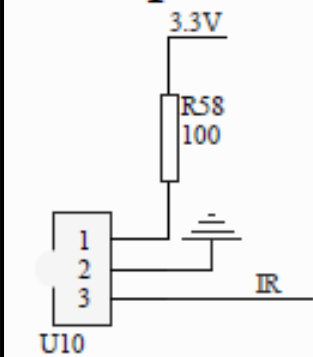
### RS232



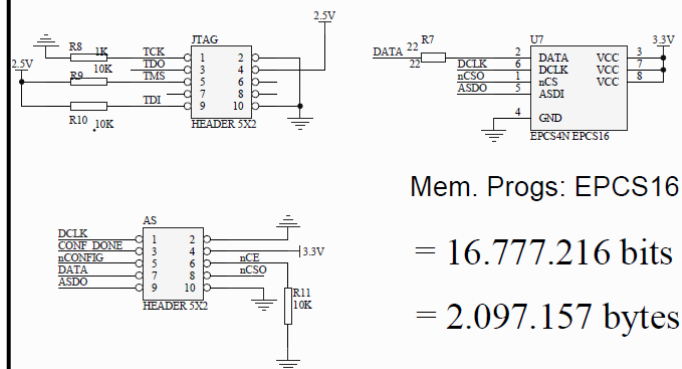
### Buzzer



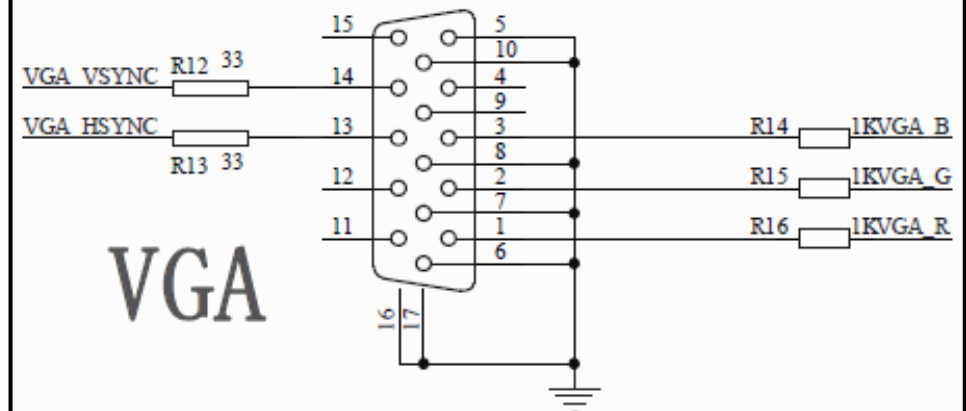
### Receptor IR



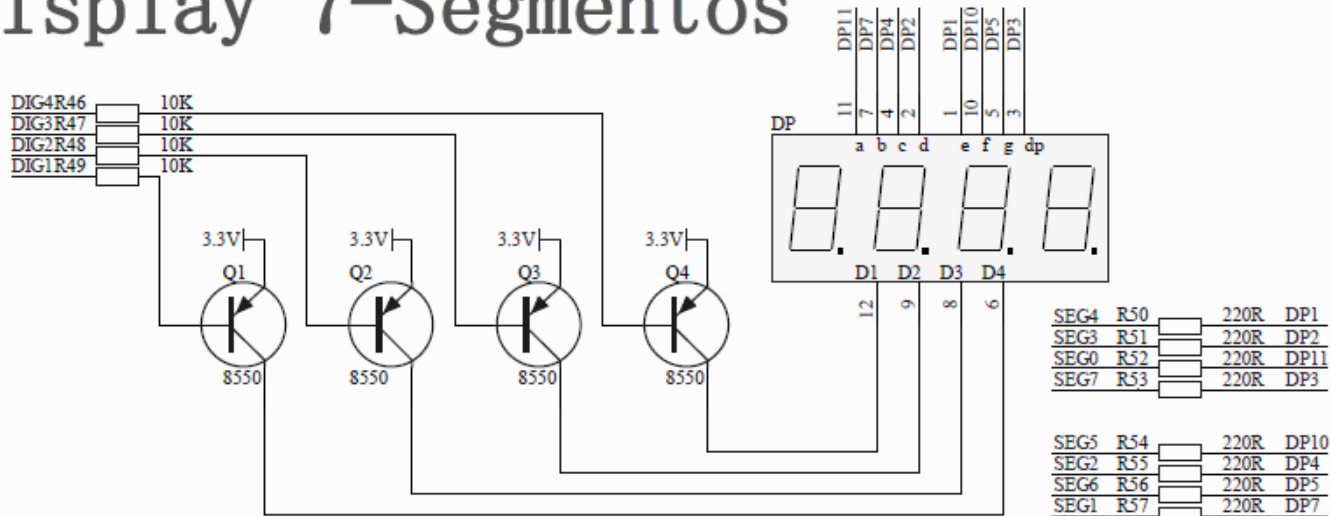
### JTAG AS



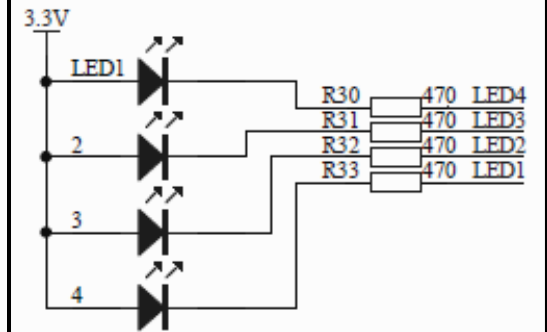
### VGA



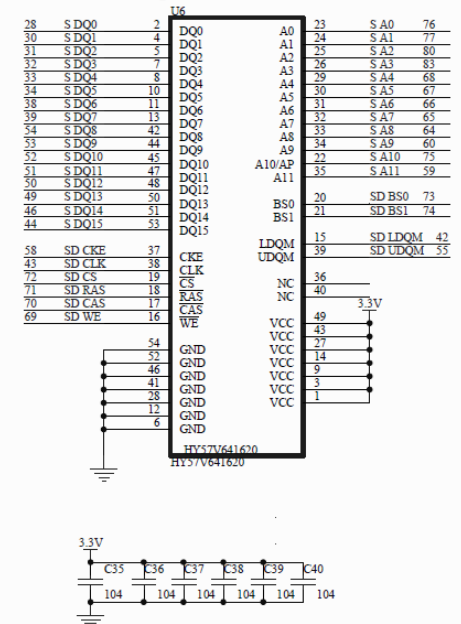
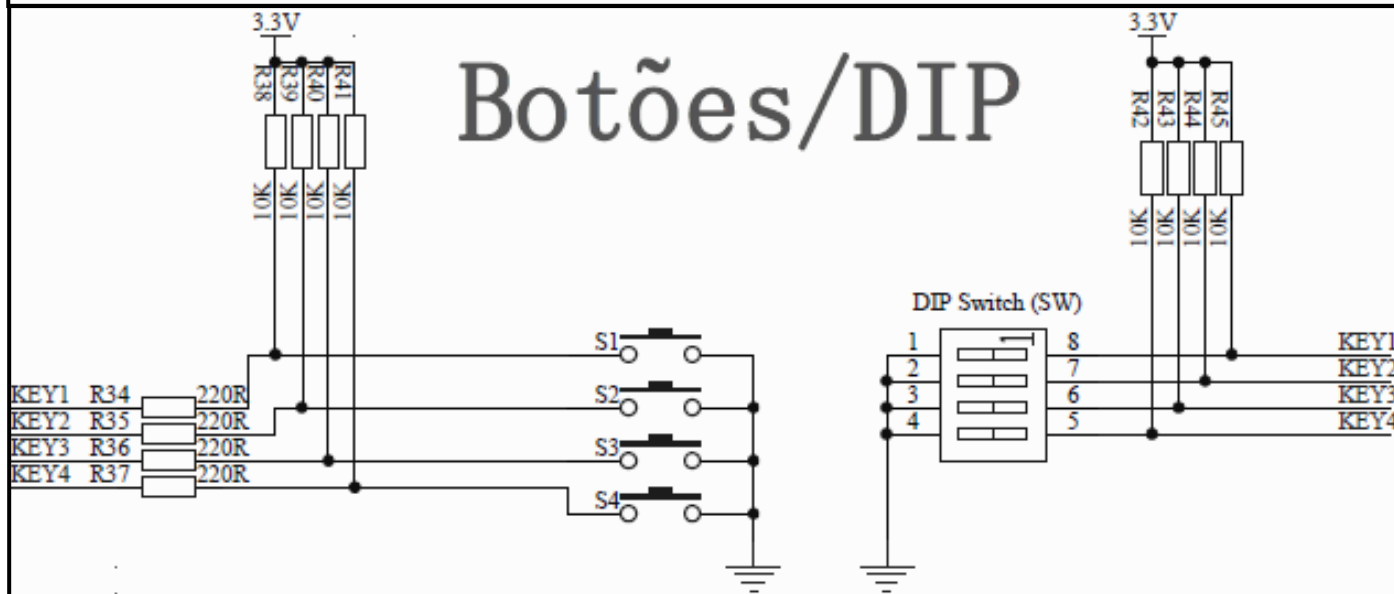
## Display 7-Segmentos



## LEDs

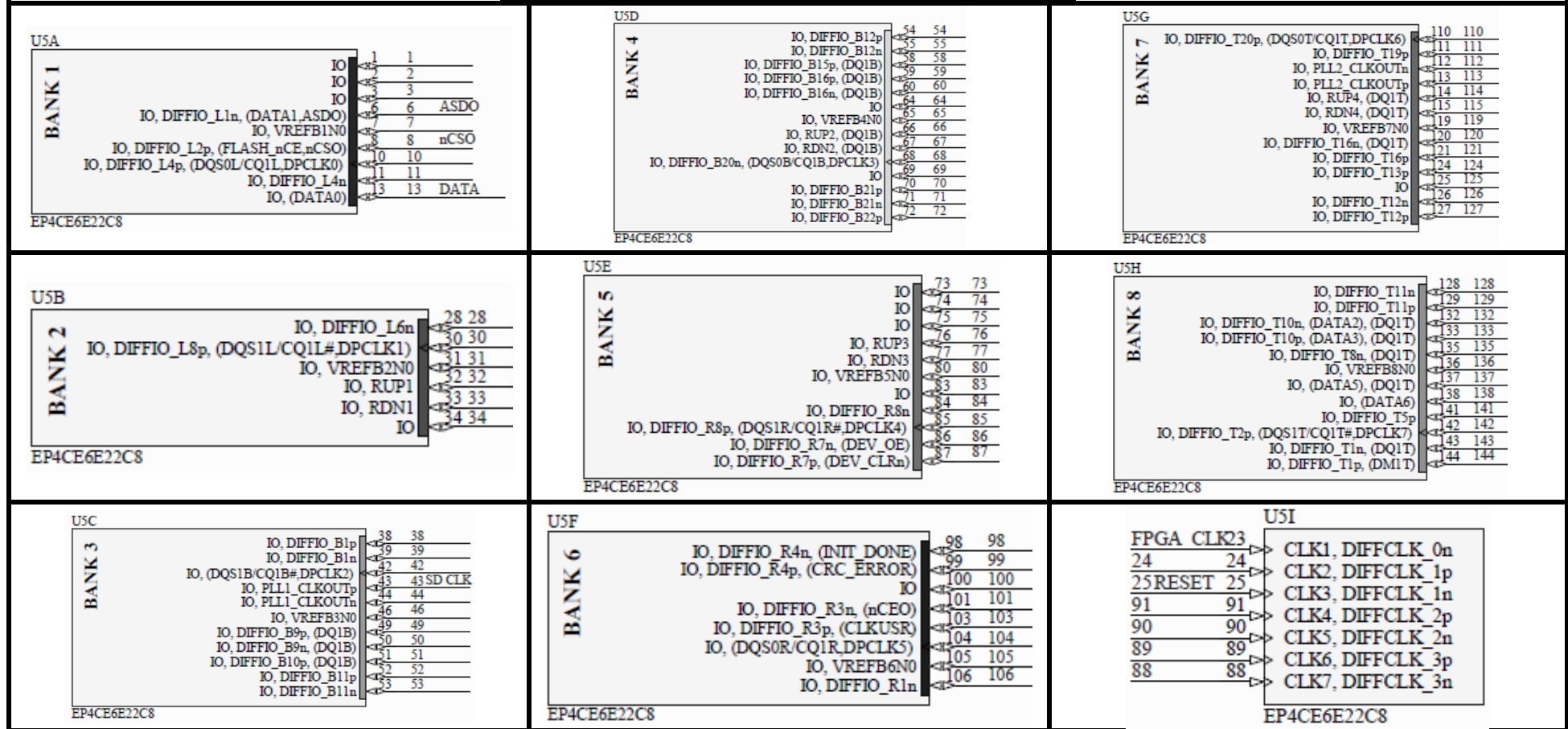


## SDRAM (HY57V641620)

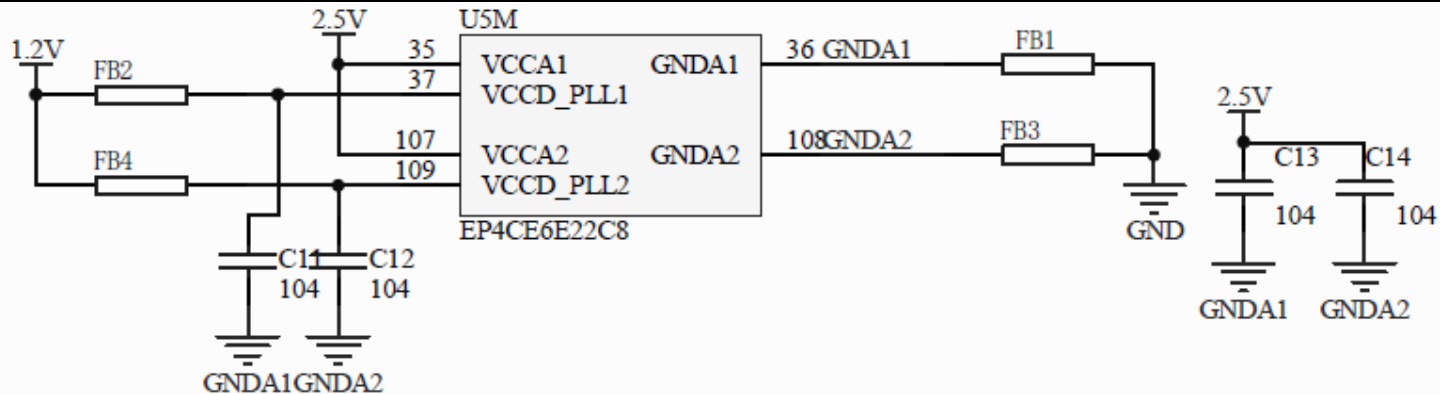
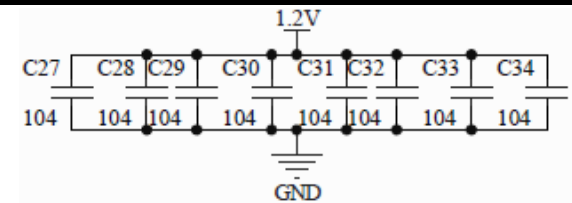
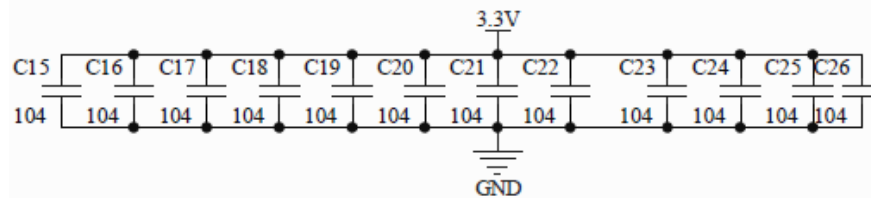
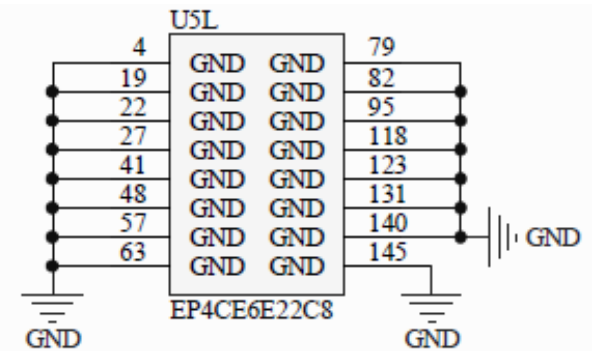
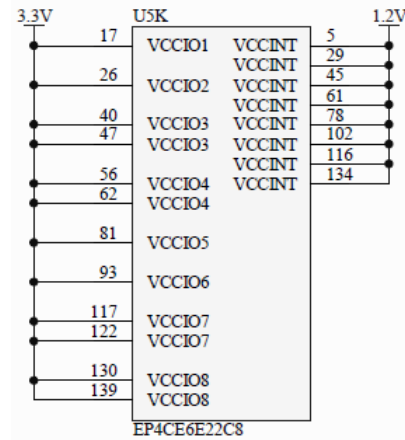
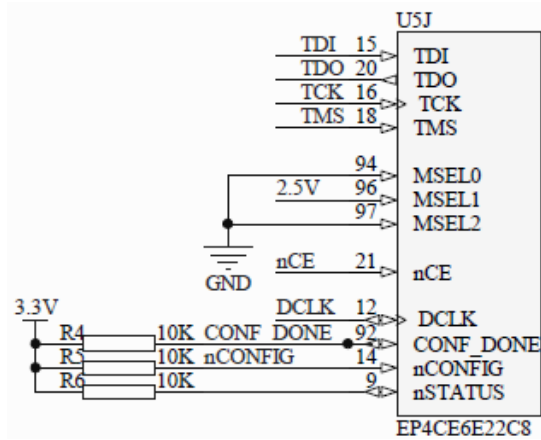




## CI FPGA – Altera Cyclone IV EP4CE6E22N



## CI FPGA – Altera Cyclone IV EP4CE6E22N (Cont.)



## **Módulos de expansão do kit Rz-EasyFPGA A2.2**

