TINYCPU のトップ回路のユーザ制約ファイル（Spartan3E スタータキット用）

ソースコード

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# ROT PUSH BUTTON
NET "ROT_A" LOC = "K18" | IOSTANDARD = LVTTL | PULLUP ;
NET "ROT_CENTER" LOC = "V16" | IOSTANDARD = LVTTL | PULLDOWN ;

# PUSH SWITCH
NET "BTN_SOUTH" LOC = "K17" | IOSTANDARD = LVTTL | PULLDOWN ;
NET "BTN_EAST" LOC = "H13" | IOSTANDARD = LVTTL | PULLDOWN ;
NET "BTN_NORTH" LOC = "V4" | IOSTANDARD = LVTTL | PULLDOWN ;
NET "BTN_WEST" LOC = "D18" | IOSTANDARD = LVTTL | PULLDOWN ;

# Slide SWITH
NET "SW<0>" LOC="L13" | IOSTANDARD = LVTTL | PULLUP ;
NET "SW<1>" LOC="L14" | IOSTANDARD = LVTTL | PULLUP ;
NET "SW<2>" LOC="H18" | IOSTANDARD = LVTTL | PULLUP ;
NET "SW<3>" LOC="N17" | IOSTANDARD = LVTTL | PULLUP ;

# LED
NET "LED<4>" LOC = "C11" | IOSTANDARD = LVTTL | SLEW = SLOW | DRIVE = 8 ;
NET "LED<3>" LOC = "F11" | IOSTANDARD = LVTTL | SLEW = SLOW | DRIVE = 8 ;
NET "LED<2>" LOC = "E11" | IOSTANDARD = LVTTL | SLEW = SLOW | DRIVE = 8 ;
NET "LED<1>" LOC = "E12" | IOSTANDARD = LVTTL | SLEW = SLOW | DRIVE = 8 ;
NET "LED<0>" LOC = "F12" | IOSTANDARD = LVTTL | SLEW = SLOW | DRIVE = 8 ;

# CLOCK
NET "CLK50MHZ" LOC = "C9" | IOSTANDARD = LVCMOS33 ;
# Define clock period for 50 MHz oscillator
NET "CLK50MHZ" PERIOD = 20.0ns HIGH 40%;

# LCD
NET "LCD_E" LOC = "M18" | IOSTANDARD = LVCMOS33 | DRIVE = 4 | SLEW = SLOW ;
NET "LCD_RS" LOC = "L18" | IOSTANDARD = LVCMOS33 | DRIVE = 4 | SLEW = SLOW ;
NET "LCD_RW" LOC = "L17" | IOSTANDARD = LVCMOS33 | DRIVE = 4 | SLEW = SLOW ;
# The LCD four-bit data interface is shared with the StrataFlash.
NET "SF_D<8>" LOC = "R15" | IOSTANDARD = LVCMOS33 | DRIVE = 4 | SLEW = SLOW ;
NET "SF_D<9>" LOC = "R16" | IOSTANDARD = LVCMOS33 | DRIVE = 4 | SLEW = SLOW ;
NET "SF_D<10>" LOC = "P17" | IOSTANDARD = LVCMOS33 | DRIVE = 4 | SLEW = SLOW ;
NET "SF_D<11>" LOC = "M15" | IOSTANDARD = LVCMOS33 | DRIVE = 4 | SLEW = SLOW ;
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