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#
# This file acts as a catalogue of all pinout bindings you may want,
# so that you can copy-paste them to build your own .pcf file out
# of it. It is also possible, of course, to use custom names.
#
# See https://pico-ice.tinyvision.ai/pinout.html for the position
# of the pins on the board.

# Reference for PMOD names:
# https://digilent.com/reference/pmod/start

# Signals used by the default firmware
set_io -nowarn CLK          35
set_io -nowarn UART_TX      25
set_io -nowarn UART_RX      27

# Signals definition (as in the circuit diagram)
set_io -nowarn ICE_2         2
set_io -nowarn ICE_3         3
set_io -nowarn ICE_4         4
set_io -nowarn ICE_6         6
set_io -nowarn ICE_9         9
set_io -nowarn ICE_10        10
set_io -nowarn ICE_11        11
set_io -nowarn ICE_18        18
set_io -nowarn ICE_19        19
set_io -nowarn ICE_20_G3     20
set_io -nowarn ICE_21        21
set_io -nowarn ICE_23        23
set_io -nowarn ICE_25        25
set_io -nowarn ICE_26        26
set_io -nowarn ICE_27        27
set_io -nowarn ICE_28        28
set_io -nowarn ICE_31        31
set_io -nowarn ICE_32        32
set_io -nowarn ICE_34        34
set_io -nowarn ICE_35_G0     35
set_io -nowarn ICE_36        36
set_io -nowarn ICE_38        38
set_io -nowarn ICE_42        42
set_io -nowarn ICE_43        43
set_io -nowarn ICE_44_G6     44
set_io -nowarn ICE_45        45
set_io -nowarn ICE_46        46
set_io -nowarn ICE_47        47
set_io -nowarn ICE_48        48
set_io -nowarn ICE_FLASH_IO2 12
set_io -nowarn ICE_FLASH_IO3 13
set_io -nowarn ICE_PB        10 # active-low
set_io -nowarn ICE_SO        14
set_io -nowarn ICE_SI        17
set_io -nowarn ICE_SCK       15
set_io -nowarn ICE_SSN       16 # active-low
set_io -nowarn SRAM_SS       37 # active-high
set_io -nowarn LED_G         39 # active-low
set_io -nowarn LED_B         40 # active-low
set_io -nowarn LED_R         41 # active-low

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# Alternate names found on the silkscreen
set_io -nowarn ICE_SW2          10 # active-low

# Silicon IO names
set_io -nowarn IOB_6a           2
set_io -nowarn IOB_9b           3
set_io -nowarn IOB_8a           4
set_io -nowarn IOB_13b          6
set_io -nowarn IOB_16a          9
set_io -nowarn IOB_18a          10
set_io -nowarn IOB_20a          11
set_io -nowarn IOB_31b          18
set_io -nowarn IOB_29b          19
set_io -nowarn IOB_25b          20
set_io -nowarn IOT_23b          21
set_io -nowarn IOT_37a          23
set_io -nowarn IOT_36b          25
set_io -nowarn IOT_39a          26
set_io -nowarn IOT_38b          27
set_io -nowarn IOT_41a          28
set_io -nowarn IOT_42b          31
set_io -nowarn IOT_43a          32
set_io -nowarn IOT_44b          34
set_io -nowarn IOT_46b          35
set_io -nowarn IOT_48b          36
set_io -nowarn IOT_50b          38
set_io -nowarn IOT_51a          42
set_io -nowarn IOT_49a          43
set_io -nowarn IOB_3b           44
set_io -nowarn IOB_5b           45
set_io -nowarn IOB_0a           46
set_io -nowarn IOB_2b           47
set_io -nowarn IOB_4a           48
set_io -nowarn IOB_22a          12
set_io -nowarn IOB_24a          13
set_io -nowarn IOB_18a          10
set_io -nowarn IOB_32a          14
set_io -nowarn IOB_33b          17
set_io -nowarn IOB_34a          15
set_io -nowarn IOB_35b          16
set_io -nowarn IOT_45a          37
set_io -nowarn RGB0             39
set_io -nowarn RGB1             40
set_io -nowarn RGB2             41

# ICE_PMOD0A (near USB) top row
# GPIO
set_io -nowarn ICE_PMOD0A_I04   45
set_io -nowarn ICE_PMOD0A_I03   47
set_io -nowarn ICE_PMOD0A_I02   2
set_io -nowarn ICE_PMOD0A_I01   4
# I2C
set_io -nowarn ICE_PMOD0A_SDA   45
set_io -nowarn ICE_PMOD0A_SCL   47
set_io -nowarn ICE_PMOD0A_RST   2
set_io -nowarn ICE_PMOD0A_INT   4
# I2S
set_io -nowarn ICE_PMOD0A_BCLK  45

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set_io -nowarn ICE_PMOD0A_ADC 47
set_io -nowarn ICE_PMOD0A_DAC 2
set_io -nowarn ICE_PMOD0A_LRCLK 4
# SPI
set_io -nowarn ICE_PMOD0A_SCK 45
set_io -nowarn ICE_PMOD0A_MISO 47
set_io -nowarn ICE_PMOD0A_MOSI 2
set_io -nowarn ICE_PMOD0A_CS 4
# UART
set_io -nowarn ICE_PMOD0A_RTS 45
set_io -nowarn ICE_PMOD0A_RXD 47
set_io -nowarn ICE_PMOD0A_TXD 2
set_io -nowarn ICE_PMOD0A_CTS 4
# HBridge
set_io -nowarn ICE_PMOD0A_SB 45
set_io -nowarn ICE_PMOD0A_SA 47
set_io -nowarn ICE_PMOD0A_EN 2
set_io -nowarn ICE_PMOD0A_DIR 4

# ICE_PMOD0B (near USB) bottom row
# GPIO
set_io -nowarn ICE_PMOD0B_I04 44
set_io -nowarn ICE_PMOD0B_I03 46
set_io -nowarn ICE_PMOD0B_I02 48
set_io -nowarn ICE_PMOD0B_I01 3
# I2C
set_io -nowarn ICE_PMOD0B_SDA 44
set_io -nowarn ICE_PMOD0B_SCL 46
set_io -nowarn ICE_PMOD0B_RST 48
set_io -nowarn ICE_PMOD0B_INT 3
# I2S
set_io -nowarn ICE_PMOD0B_BCLK 44
set_io -nowarn ICE_PMOD0B_ADC 46
set_io -nowarn ICE_PMOD0B_DAC 48
set_io -nowarn ICE_PMOD0B_LRCLK 3
# SPI
set_io -nowarn ICE_PMOD0B_SCK 44
set_io -nowarn ICE_PMOD0B_MISO 46
set_io -nowarn ICE_PMOD0B_MOSI 48
set_io -nowarn ICE_PMOD0B_CS 3
# UART
set_io -nowarn ICE_PMOD0B_RTS 44
set_io -nowarn ICE_PMOD0B_RXD 46
set_io -nowarn ICE_PMOD0B_TXD 48
set_io -nowarn ICE_PMOD0B_CTS 3
# HBridge
set_io -nowarn ICE_PMOD0B_SB 44
set_io -nowarn ICE_PMOD0B_SA 46
set_io -nowarn ICE_PMOD0B_EN 48
set_io -nowarn ICE_PMOD0B_DIR 3

# ICE_PMOD1A (near LED) top row
# GPIO
set_io -nowarn ICE_PMOD1A_I04 31
set_io -nowarn ICE_PMOD1A_I03 34
set_io -nowarn ICE_PMOD1A_I02 38
set_io -nowarn ICE_PMOD1A_I01 43
# I2C
set_io -nowarn ICE_PMOD1A_SDA 31

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set_io -nowarn ICE_PMOD1A_SCL    34
set_io -nowarn ICE_PMOD1A_RST    38
set_io -nowarn ICE_PMOD1A_INT   43
# I2S
set_io -nowarn ICE_PMOD1A_BCLK  31
set_io -nowarn ICE_PMOD1A_ADC   34
set_io -nowarn ICE_PMOD1A_DAC   38
set_io -nowarn ICE_PMOD1A_LRCLK 43
# SPI
set_io -nowarn ICE_PMOD1A_SCK   31
set_io -nowarn ICE_PMOD1A_MISO  34
set_io -nowarn ICE_PMOD1A_MOSI  38
set_io -nowarn ICE_PMOD1A_CS    43
# UART
set_io -nowarn ICE_PMOD1A_RTS   31
set_io -nowarn ICE_PMOD1A_RXD   34
set_io -nowarn ICE_PMOD1A_TXD   38
set_io -nowarn ICE_PMOD1A_CTS   43
# HBridge
set_io -nowarn ICE_PMOD1A_SB    31
set_io -nowarn ICE_PMOD1A_SA    34
set_io -nowarn ICE_PMOD1A_EN    38
set_io -nowarn ICE_PMOD1A_DIR   43

# ICE_PMOD1B (near LED) bottom row
# GPIO
set_io -nowarn ICE_PMOD1B_I04   28
set_io -nowarn ICE_PMOD1B_I03   32
set_io -nowarn ICE_PMOD1B_I02   36
set_io -nowarn ICE_PMOD1B_I01   42
# I2C
set_io -nowarn ICE_PMOD1B_SDA   28
set_io -nowarn ICE_PMOD1B_SCL   32
set_io -nowarn ICE_PMOD1B_RST   36
set_io -nowarn ICE_PMOD1B_INT   42
# I2S
set_io -nowarn ICE_PMOD1B_BCLK  28
set_io -nowarn ICE_PMOD1B_ADC   32
set_io -nowarn ICE_PMOD1B_DAC   36
set_io -nowarn ICE_PMOD1B_LRCLK 42
# SPI
set_io -nowarn ICE_PMOD1B_SCK   28
set_io -nowarn ICE_PMOD1B_MISO  32
set_io -nowarn ICE_PMOD1B_MOSI  36
set_io -nowarn ICE_PMOD1B_CS    42
# UART
set_io -nowarn ICE_PMOD1B_RTS   28
set_io -nowarn ICE_PMOD1B_RXD   32
set_io -nowarn ICE_PMOD1B_TXD   36
set_io -nowarn ICE_PMOD1B_CTS   42
# HBridge
set_io -nowarn ICE_PMOD1B_SB    28
set_io -nowarn ICE_PMOD1B_SA    32
set_io -nowarn ICE_PMOD1B_EN    36
set_io -nowarn ICE_PMOD1B_DIR   42

# ICE_PMOD2A (near LED, shared with RP2040) top row
# GPIO
set_io -nowarn ICE_PMOD2A_I04   19

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set_io -nowarn ICE_PMOD2A_I03    21
set_io -nowarn ICE_PMOD2A_I02    25
set_io -nowarn ICE_PMOD2A_I01    27
# I2C
set_io -nowarn ICE_PMOD2A_SDA    19
set_io -nowarn ICE_PMOD2A_SCL    21
set_io -nowarn ICE_PMOD2A_RST    25
set_io -nowarn ICE_PMOD2A_INT    27
# I2S
set_io -nowarn ICE_PMOD2A_BCLK   19
set_io -nowarn ICE_PMOD2A_ADC    21
set_io -nowarn ICE_PMOD2A_DAC    25
set_io -nowarn ICE_PMOD2A_LRCLK  27
# SPI
set_io -nowarn ICE_PMOD2A_SCK    19
set_io -nowarn ICE_PMOD2A_MISO   21
set_io -nowarn ICE_PMOD2A_MOSI   25
set_io -nowarn ICE_PMOD2A_CS     27
# UART
set_io -nowarn ICE_PMOD2A_RTS    19
set_io -nowarn ICE_PMOD2A_RXD    21
set_io -nowarn ICE_PMOD2A_TXD    25
set_io -nowarn ICE_PMOD2A_CTS    27
# HBridge
set_io -nowarn ICE_PMOD2A_SB     19
set_io -nowarn ICE_PMOD2A_SA     21
set_io -nowarn ICE_PMOD2A_EN     25
set_io -nowarn ICE_PMOD2A_DIR    27

# ICE_PMOD2B (near LED, shared with RP2040) bottom row
# GPIO
set_io -nowarn ICE_PMOD2B_I04    18
set_io -nowarn ICE_PMOD2B_I03    20
set_io -nowarn ICE_PMOD2B_I02    23
set_io -nowarn ICE_PMOD2B_I01    26
# I2C
set_io -nowarn ICE_PMOD2B_SDA    18
set_io -nowarn ICE_PMOD2B_SCL    20
set_io -nowarn ICE_PMOD2B_RST    23
set_io -nowarn ICE_PMOD2B_INT    26
# I2S
set_io -nowarn ICE_PMOD2B_BCLK   18
set_io -nowarn ICE_PMOD2B_ADC    20
set_io -nowarn ICE_PMOD2B_DAC    23
set_io -nowarn ICE_PMOD2B_LRCLK  26
# SPI
set_io -nowarn ICE_PMOD2B_SCK    18
set_io -nowarn ICE_PMOD2B_MISO   20
set_io -nowarn ICE_PMOD2B_MOSI   23
set_io -nowarn ICE_PMOD2B_CS     26
# UART
set_io -nowarn ICE_PMOD2B_RTS    18
set_io -nowarn ICE_PMOD2B_RXD    20
set_io -nowarn ICE_PMOD2B_TXD    23
set_io -nowarn ICE_PMOD2B_CTS    26
# HBridge
set_io -nowarn ICE_PMOD2B_SB     18
set_io -nowarn ICE_PMOD2B_SA     20
set_io -nowarn ICE_PMOD2B_EN     23

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set_io -nowarn ICE_PMOD2B_DIR    26
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