-- megafunction wizard: %ALTPLL%

-- GENERATION: STANDARD

-- VERSION: WM1.0

-- MODULE: altpll

-- ============================================================

-- File Name: vga\_pll.vhd

-- Megafunction Name(s):

-- altpll

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-- Simulation Library Files(s):

-- altera\_mf

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-- THIS IS A WIZARD-GENERATED FILE. DO NOT EDIT THIS FILE!

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-- 11.1 Build 173 11/01/2011 SJ Full Version

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LIBRARY ieee;

USE ieee.std\_logic\_1164.all;

LIBRARY altera\_mf;

USE altera\_mf.all;

ENTITY vga\_pll IS

PORT

(

areset : IN STD\_LOGIC := '0';

inclk0 : IN STD\_LOGIC := '0';

c0 : OUT STD\_LOGIC

);

END vga\_pll;

ARCHITECTURE SYN OF vga\_pll IS

SIGNAL sub\_wire0 : STD\_LOGIC\_VECTOR (5 DOWNTO 0);

SIGNAL sub\_wire1 : STD\_LOGIC ;

SIGNAL sub\_wire2 : STD\_LOGIC ;

SIGNAL sub\_wire3 : STD\_LOGIC\_VECTOR (1 DOWNTO 0);

SIGNAL sub\_wire4\_bv : BIT\_VECTOR (0 DOWNTO 0);

SIGNAL sub\_wire4 : STD\_LOGIC\_VECTOR (0 DOWNTO 0);

COMPONENT altpll

GENERIC (

clk0\_divide\_by : NATURAL;

clk0\_duty\_cycle : NATURAL;

clk0\_multiply\_by : NATURAL;

clk0\_phase\_shift : STRING;

compensate\_clock : STRING;

inclk0\_input\_frequency : NATURAL;

intended\_device\_family : STRING;

lpm\_hint : STRING;

lpm\_type : STRING;

operation\_mode : STRING;

port\_activeclock : STRING;

port\_areset : STRING;

port\_clkbad0 : STRING;

port\_clkbad1 : STRING;

port\_clkloss : STRING;

port\_clkswitch : STRING;

port\_configupdate : STRING;

port\_fbin : STRING;

port\_inclk0 : STRING;

port\_inclk1 : STRING;

port\_locked : STRING;

port\_pfdena : STRING;

port\_phasecounterselect : STRING;

port\_phasedone : STRING;

port\_phasestep : STRING;

port\_phaseupdown : STRING;

port\_pllena : STRING;

port\_scanaclr : STRING;

port\_scanclk : STRING;

port\_scanclkena : STRING;

port\_scandata : STRING;

port\_scandataout : STRING;

port\_scandone : STRING;

port\_scanread : STRING;

port\_scanwrite : STRING;

port\_clk0 : STRING;

port\_clk1 : STRING;

port\_clk2 : STRING;

port\_clk3 : STRING;

port\_clk4 : STRING;

port\_clk5 : STRING;

port\_clkena0 : STRING;

port\_clkena1 : STRING;

port\_clkena2 : STRING;

port\_clkena3 : STRING;

port\_clkena4 : STRING;

port\_clkena5 : STRING;

port\_extclk0 : STRING;

port\_extclk1 : STRING;

port\_extclk2 : STRING;

port\_extclk3 : STRING

);

PORT (

areset : IN STD\_LOGIC ;

clk : OUT STD\_LOGIC\_VECTOR (5 DOWNTO 0);

inclk : IN STD\_LOGIC\_VECTOR (1 DOWNTO 0)

);

END COMPONENT;

BEGIN

sub\_wire4\_bv(0 DOWNTO 0) <= "0";

sub\_wire4 <= To\_stdlogicvector(sub\_wire4\_bv);

sub\_wire1 <= sub\_wire0(0);

c0 <= sub\_wire1;

sub\_wire2 <= inclk0;

sub\_wire3 <= sub\_wire4(0 DOWNTO 0) & sub\_wire2;

altpll\_component : altpll

GENERIC MAP (

clk0\_divide\_by => 5,

clk0\_duty\_cycle => 50,

clk0\_multiply\_by => 19,

clk0\_phase\_shift => "0",

compensate\_clock => "CLK0",

inclk0\_input\_frequency => 20000,

intended\_device\_family => "Cyclone II",

lpm\_hint => "CBX\_MODULE\_PREFIX=vga\_pll",

lpm\_type => "altpll",

operation\_mode => "NORMAL",

port\_activeclock => "PORT\_UNUSED",

port\_areset => "PORT\_USED",

port\_clkbad0 => "PORT\_UNUSED",

port\_clkbad1 => "PORT\_UNUSED",

port\_clkloss => "PORT\_UNUSED",

port\_clkswitch => "PORT\_UNUSED",

port\_configupdate => "PORT\_UNUSED",

port\_fbin => "PORT\_UNUSED",

port\_inclk0 => "PORT\_USED",

port\_inclk1 => "PORT\_UNUSED",

port\_locked => "PORT\_UNUSED",

port\_pfdena => "PORT\_UNUSED",

port\_phasecounterselect => "PORT\_UNUSED",

port\_phasedone => "PORT\_UNUSED",

port\_phasestep => "PORT\_UNUSED",

port\_phaseupdown => "PORT\_UNUSED",

port\_pllena => "PORT\_UNUSED",

port\_scanaclr => "PORT\_UNUSED",

port\_scanclk => "PORT\_UNUSED",

port\_scanclkena => "PORT\_UNUSED",

port\_scandata => "PORT\_UNUSED",

port\_scandataout => "PORT\_UNUSED",

port\_scandone => "PORT\_UNUSED",

port\_scanread => "PORT\_UNUSED",

port\_scanwrite => "PORT\_UNUSED",

port\_clk0 => "PORT\_USED",

port\_clk1 => "PORT\_UNUSED",

port\_clk2 => "PORT\_UNUSED",

port\_clk3 => "PORT\_UNUSED",

port\_clk4 => "PORT\_UNUSED",

port\_clk5 => "PORT\_UNUSED",

port\_clkena0 => "PORT\_UNUSED",

port\_clkena1 => "PORT\_UNUSED",

port\_clkena2 => "PORT\_UNUSED",

port\_clkena3 => "PORT\_UNUSED",

port\_clkena4 => "PORT\_UNUSED",

port\_clkena5 => "PORT\_UNUSED",

port\_extclk0 => "PORT\_UNUSED",

port\_extclk1 => "PORT\_UNUSED",

port\_extclk2 => "PORT\_UNUSED",

port\_extclk3 => "PORT\_UNUSED"

)

PORT MAP (

areset => areset,

inclk => sub\_wire3,

clk => sub\_wire0

);

END SYN;

-- ============================================================

-- CNX file retrieval info

-- ============================================================

-- Retrieval info: PRIVATE: ACTIVECLK\_CHECK STRING "0"

-- Retrieval info: PRIVATE: BANDWIDTH STRING "1.000"

-- Retrieval info: PRIVATE: BANDWIDTH\_FEATURE\_ENABLED STRING "0"

-- Retrieval info: PRIVATE: BANDWIDTH\_FREQ\_UNIT STRING "MHz"

-- Retrieval info: PRIVATE: BANDWIDTH\_PRESET STRING "Low"

-- Retrieval info: PRIVATE: BANDWIDTH\_USE\_AUTO STRING "1"

-- Retrieval info: PRIVATE: BANDWIDTH\_USE\_CUSTOM STRING "0"

-- Retrieval info: PRIVATE: BANDWIDTH\_USE\_PRESET STRING "0"

-- Retrieval info: PRIVATE: CLKBAD\_SWITCHOVER\_CHECK STRING "0"

-- Retrieval info: PRIVATE: CLKLOSS\_CHECK STRING "0"

-- Retrieval info: PRIVATE: CLKSWITCH\_CHECK STRING "1"

-- Retrieval info: PRIVATE: CNX\_NO\_COMPENSATE\_RADIO STRING "0"

-- Retrieval info: PRIVATE: CREATE\_CLKBAD\_CHECK STRING "0"

-- Retrieval info: PRIVATE: CREATE\_INCLK1\_CHECK STRING "0"

-- Retrieval info: PRIVATE: CUR\_DEDICATED\_CLK STRING "c0"

-- Retrieval info: PRIVATE: CUR\_FBIN\_CLK STRING "c0"

-- Retrieval info: PRIVATE: DEVICE\_SPEED\_GRADE STRING "6"

-- Retrieval info: PRIVATE: DIV\_FACTOR0 NUMERIC "1"

-- Retrieval info: PRIVATE: DUTY\_CYCLE0 STRING "50.00000000"

-- Retrieval info: PRIVATE: EFF\_OUTPUT\_FREQ\_VALUE0 STRING "190.000000"

-- Retrieval info: PRIVATE: EXPLICIT\_SWITCHOVER\_COUNTER STRING "0"

-- Retrieval info: PRIVATE: EXT\_FEEDBACK\_RADIO STRING "0"

-- Retrieval info: PRIVATE: GLOCKED\_COUNTER\_EDIT\_CHANGED STRING "1"

-- Retrieval info: PRIVATE: GLOCKED\_FEATURE\_ENABLED STRING "1"

-- Retrieval info: PRIVATE: GLOCKED\_MODE\_CHECK STRING "0"

-- Retrieval info: PRIVATE: GLOCK\_COUNTER\_EDIT NUMERIC "1048575"

-- Retrieval info: PRIVATE: HAS\_MANUAL\_SWITCHOVER STRING "1"

-- Retrieval info: PRIVATE: INCLK0\_FREQ\_EDIT STRING "50.000"

-- Retrieval info: PRIVATE: INCLK0\_FREQ\_UNIT\_COMBO STRING "MHz"

-- Retrieval info: PRIVATE: INCLK1\_FREQ\_EDIT STRING "100.000"

-- Retrieval info: PRIVATE: INCLK1\_FREQ\_EDIT\_CHANGED STRING "1"

-- Retrieval info: PRIVATE: INCLK1\_FREQ\_UNIT\_CHANGED STRING "1"

-- Retrieval info: PRIVATE: INCLK1\_FREQ\_UNIT\_COMBO STRING "MHz"

-- Retrieval info: PRIVATE: INTENDED\_DEVICE\_FAMILY STRING "Cyclone II"

-- Retrieval info: PRIVATE: INT\_FEEDBACK\_\_MODE\_RADIO STRING "1"

-- Retrieval info: PRIVATE: LOCKED\_OUTPUT\_CHECK STRING "0"

-- Retrieval info: PRIVATE: LONG\_SCAN\_RADIO STRING "1"

-- Retrieval info: PRIVATE: LVDS\_MODE\_DATA\_RATE STRING "Not Available"

-- Retrieval info: PRIVATE: LVDS\_MODE\_DATA\_RATE\_DIRTY NUMERIC "0"

-- Retrieval info: PRIVATE: LVDS\_PHASE\_SHIFT\_UNIT0 STRING "deg"

-- Retrieval info: PRIVATE: MIG\_DEVICE\_SPEED\_GRADE STRING "Any"

-- Retrieval info: PRIVATE: MIRROR\_CLK0 STRING "0"

-- Retrieval info: PRIVATE: MULT\_FACTOR0 NUMERIC "1"

-- Retrieval info: PRIVATE: NORMAL\_MODE\_RADIO STRING "1"

-- Retrieval info: PRIVATE: OUTPUT\_FREQ0 STRING "190.00000000"

-- Retrieval info: PRIVATE: OUTPUT\_FREQ\_MODE0 STRING "1"

-- Retrieval info: PRIVATE: OUTPUT\_FREQ\_UNIT0 STRING "MHz"

-- Retrieval info: PRIVATE: PHASE\_RECONFIG\_FEATURE\_ENABLED STRING "0"

-- Retrieval info: PRIVATE: PHASE\_RECONFIG\_INPUTS\_CHECK STRING "0"

-- Retrieval info: PRIVATE: PHASE\_SHIFT0 STRING "0.00000000"

-- Retrieval info: PRIVATE: PHASE\_SHIFT\_STEP\_ENABLED\_CHECK STRING "0"

-- Retrieval info: PRIVATE: PHASE\_SHIFT\_UNIT0 STRING "deg"

-- Retrieval info: PRIVATE: PLL\_ADVANCED\_PARAM\_CHECK STRING "0"

-- Retrieval info: PRIVATE: PLL\_ARESET\_CHECK STRING "1"

-- Retrieval info: PRIVATE: PLL\_AUTOPLL\_CHECK NUMERIC "1"

-- Retrieval info: PRIVATE: PLL\_ENA\_CHECK STRING "0"

-- Retrieval info: PRIVATE: PLL\_ENHPLL\_CHECK NUMERIC "0"

-- Retrieval info: PRIVATE: PLL\_FASTPLL\_CHECK NUMERIC "0"

-- Retrieval info: PRIVATE: PLL\_FBMIMIC\_CHECK STRING "0"

-- Retrieval info: PRIVATE: PLL\_LVDS\_PLL\_CHECK NUMERIC "0"

-- Retrieval info: PRIVATE: PLL\_PFDENA\_CHECK STRING "0"

-- Retrieval info: PRIVATE: PLL\_TARGET\_HARCOPY\_CHECK NUMERIC "0"

-- Retrieval info: PRIVATE: PRIMARY\_CLK\_COMBO STRING "inclk0"

-- Retrieval info: PRIVATE: RECONFIG\_FILE STRING "vga\_pll.mif"

-- Retrieval info: PRIVATE: SACN\_INPUTS\_CHECK STRING "0"

-- Retrieval info: PRIVATE: SCAN\_FEATURE\_ENABLED STRING "0"

-- Retrieval info: PRIVATE: SELF\_RESET\_LOCK\_LOSS STRING "0"

-- Retrieval info: PRIVATE: SHORT\_SCAN\_RADIO STRING "0"

-- Retrieval info: PRIVATE: SPREAD\_FEATURE\_ENABLED STRING "0"

-- Retrieval info: PRIVATE: SPREAD\_FREQ STRING "50.000"

-- Retrieval info: PRIVATE: SPREAD\_FREQ\_UNIT STRING "KHz"

-- Retrieval info: PRIVATE: SPREAD\_PERCENT STRING "0.500"

-- Retrieval info: PRIVATE: SPREAD\_USE STRING "0"

-- Retrieval info: PRIVATE: SRC\_SYNCH\_COMP\_RADIO STRING "0"

-- Retrieval info: PRIVATE: STICKY\_CLK0 STRING "1"

-- Retrieval info: PRIVATE: SWITCHOVER\_COUNT\_EDIT NUMERIC "1"

-- Retrieval info: PRIVATE: SWITCHOVER\_FEATURE\_ENABLED STRING "1"

-- Retrieval info: PRIVATE: SYNTH\_WRAPPER\_GEN\_POSTFIX STRING "0"

-- Retrieval info: PRIVATE: USE\_CLK0 STRING "1"

-- Retrieval info: PRIVATE: USE\_CLKENA0 STRING "0"

-- Retrieval info: PRIVATE: USE\_MIL\_SPEED\_GRADE NUMERIC "0"

-- Retrieval info: PRIVATE: ZERO\_DELAY\_RADIO STRING "0"

-- Retrieval info: LIBRARY: altera\_mf altera\_mf.altera\_mf\_components.all

-- Retrieval info: CONSTANT: CLK0\_DIVIDE\_BY NUMERIC "5"

-- Retrieval info: CONSTANT: CLK0\_DUTY\_CYCLE NUMERIC "50"

-- Retrieval info: CONSTANT: CLK0\_MULTIPLY\_BY NUMERIC "19"

-- Retrieval info: CONSTANT: CLK0\_PHASE\_SHIFT STRING "0"

-- Retrieval info: CONSTANT: COMPENSATE\_CLOCK STRING "CLK0"

-- Retrieval info: CONSTANT: INCLK0\_INPUT\_FREQUENCY NUMERIC "20000"

-- Retrieval info: CONSTANT: INTENDED\_DEVICE\_FAMILY STRING "Cyclone II"

-- Retrieval info: CONSTANT: LPM\_TYPE STRING "altpll"

-- Retrieval info: CONSTANT: OPERATION\_MODE STRING "NORMAL"

-- Retrieval info: CONSTANT: PORT\_ACTIVECLOCK STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_ARESET STRING "PORT\_USED"

-- Retrieval info: CONSTANT: PORT\_CLKBAD0 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_CLKBAD1 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_CLKLOSS STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_CLKSWITCH STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_CONFIGUPDATE STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_FBIN STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_INCLK0 STRING "PORT\_USED"

-- Retrieval info: CONSTANT: PORT\_INCLK1 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_LOCKED STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_PFDENA STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_PHASECOUNTERSELECT STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_PHASEDONE STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_PHASESTEP STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_PHASEUPDOWN STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_PLLENA STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_SCANACLR STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_SCANCLK STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_SCANCLKENA STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_SCANDATA STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_SCANDATAOUT STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_SCANDONE STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_SCANREAD STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_SCANWRITE STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clk0 STRING "PORT\_USED"

-- Retrieval info: CONSTANT: PORT\_clk1 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clk2 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clk3 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clk4 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clk5 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clkena0 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clkena1 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clkena2 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clkena3 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clkena4 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_clkena5 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_extclk0 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_extclk1 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_extclk2 STRING "PORT\_UNUSED"

-- Retrieval info: CONSTANT: PORT\_extclk3 STRING "PORT\_UNUSED"

-- Retrieval info: USED\_PORT: @clk 0 0 6 0 OUTPUT\_CLK\_EXT VCC "@clk[5..0]"

-- Retrieval info: USED\_PORT: @extclk 0 0 4 0 OUTPUT\_CLK\_EXT VCC "@extclk[3..0]"

-- Retrieval info: USED\_PORT: @inclk 0 0 2 0 INPUT\_CLK\_EXT VCC "@inclk[1..0]"

-- Retrieval info: USED\_PORT: areset 0 0 0 0 INPUT GND "areset"

-- Retrieval info: USED\_PORT: c0 0 0 0 0 OUTPUT\_CLK\_EXT VCC "c0"

-- Retrieval info: USED\_PORT: inclk0 0 0 0 0 INPUT\_CLK\_EXT GND "inclk0"

-- Retrieval info: CONNECT: @areset 0 0 0 0 areset 0 0 0 0

-- Retrieval info: CONNECT: @inclk 0 0 1 1 GND 0 0 0 0

-- Retrieval info: CONNECT: @inclk 0 0 1 0 inclk0 0 0 0 0

-- Retrieval info: CONNECT: c0 0 0 0 0 @clk 0 0 1 0

-- Retrieval info: GEN\_FILE: TYPE\_NORMAL vga\_pll.vhd TRUE

-- Retrieval info: GEN\_FILE: TYPE\_NORMAL vga\_pll.ppf TRUE

-- Retrieval info: GEN\_FILE: TYPE\_NORMAL vga\_pll.inc FALSE

-- Retrieval info: GEN\_FILE: TYPE\_NORMAL vga\_pll.cmp TRUE

-- Retrieval info: GEN\_FILE: TYPE\_NORMAL vga\_pll.bsf TRUE

-- Retrieval info: GEN\_FILE: TYPE\_NORMAL vga\_pll\_inst.vhd FALSE

-- Retrieval info: LIB\_FILE: altera\_mf

-- Retrieval info: CBX\_MODULE\_PREFIX: ON