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This is the BSDL file for TL_rev2.  If the format is not what is
expected, please send us a sample one for comparison.

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- -- C-MDE Design System. LSI Logic Corp. 1993.
- -- BSDL file written by Automatic JTAG Builder.
- -- Written on Thu Oct  9 19:38:33 1997


entity tachlite is

generic (PHYSICAL_PIN_MAP : string := "LSI_PACKAGE");

port (
            p_test_mode     : in          bit         ;
            p_rbc0          : in          bit         ;
            p_rbc1          : in          bit         ;
            p_rx            : in          bit_vector  (0 to 9);
            p_com_det       : in          bit         ;
            p_refclk        : in          bit         ;
            p_scan_sel      : in          bit         ;
            p_scan_en       : in          bit         ;
            p_lck_ref_l     : buffer      bit         ;
            p_ewrap         : inout       bit         ;
            p_idd_test      : in          bit         ;
            p_tx            : buffer      bit_vector  (0 to 9);
            p_bypassed_l    : buffer      bit         ;
            p_tdo_3         : buffer      bit         ;
            p_pci_int_l     : inout       bit         ;
            p_gnt_l         : in          bit         ;
            p_req_l         : out         bit         ;
            p_idsel         : in          bit         ;
            p_frame_l       : inout       bit         ;
            p_irdy_l        : inout       bit         ;
            p_trdy_l        : inout       bit         ;
            p_devsel_l      : inout       bit         ;
            p_stop_l        : inout       bit         ;
            p_perr_l        : inout       bit         ;
            p_serr_l        : inout       bit         ;
            p_par           : inout       bit         ;
            p_clk           : in          bit         ;
            p_rst_l         : inout       bit         ;
            p_ack64_l       : in          bit         ;
            p_req64_l       : inout       bit         ;
            p_c_be_l        : inout       bit_vector  (0 to 7);
            p_par64         : inout       bit         ;
            p_ad            : inout       bit_vector  (0 to 63);
            p_ram_ce_l      : buffer      bit         ;
            p_heartbeat     : buffer      bit         ;
            p_ram_we_l      : buffer      bit_vector  (0 to 3);
            p_mpar          : inout       bit_vector  (0 to 3);
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            p_tck           : in          bit         ;
            p_md            : inout       bit_vector  (0 to 31);
            p_madr_o        : out         bit_vector  (12 to 17);
            p_madr_io       : inout       bit_vector  (1 to 11);
            p_madr_o0       : out         bit         ;
            p_moe_l         : buffer      bit         ;
            p_rom_we_l      : buffer      bit         ;
            p_rom_ce_l      : buffer      bit         ;
            p_rom_vpp_en    : buffer      bit         ;
            p_tdo_1         : buffer      bit         ;
            p_gpio          : in          bit_vector  (0 to 3);
            p_tms           : in          bit         ;
            p_dir_reset     : buffer      bit         ;
            p_mbg_l         : in          bit         ;
            p_tdo_2         : out         bit         ;
            p_trst_l        : in          bit         ;
            p_tdi_1         : in          bit         ;
            p_tdi_3         : in          bit         ;
            p_tdo           : out         bit         ;
            p_procmon       : out         bit         ;
            p_tdi_2         : in          bit         ;
            p_tdi           : in          bit
            ) ;

use STD_1149_1_1990.all;

attribute PIN_MAP of tachlite : entity is PHYSICAL_PIN_MAP ;

constant LSI_PACKAGE : PIN_MAP_STRING :=

            "p_tdi : 214, p_tdi_2 : 213, p_procmon : 212, "  &
            "p_tdo : 211, p_tdi_3 : 210, p_tdi_1 : 209, "  &
            "p_trst_l : 208, p_tdo_2 : 207, p_mbg_l : 206, "  &
            "p_dir_reset : 205, p_tms : 204, p_gpio : ( 203, 202, 19, 18 )," 
&
            "p_tdo_1 : 201, p_rom_vpp_en : 200, p_rom_ce_l : 199, "  &
            "p_rom_we_l : 198, p_moe_l : 197, p_madr_o0 : 194, "  &
            "p_madr_io : ( 193, 192, 191, 190, 189, 188, 187, 186, 185, "  &
            "184, 183 ),p_madr_o : ( 182, 181, 180, 179, 178, 177 ),p_md : ( 
176, 175, 174, 173, 172, 171, 170, 169, 168, "  &
            "167, 166, 165, 164, 163, 162, 161, 160, 156, 155, "  &
            "154, 153, 152, 151, 150, 149, 148, 147, 146, 145, "  &
            "144, 143, 142 )"  &
            "p_tck : 158, p_mpar : ( 141, 140, 139, 138 ),p_ram_we_l : ( 137, 
136, 135, 134 )"  &
            "p_heartbeat : 133, p_ram_ce_l : 132, p_ad : ( 82, 81, 80, 79, 78, 
77, 76, 69, 67, "  &
            "66, 65, 64, 63, 62, 61, 59, 47, 46, 43, "  &
            "42, 41, 39, 38, 37, 34, 33, 32, 30, 29, "  &
            "28, 27, 26, 128, 127, 126, 125, 124, 123, 122, "  &
            "121, 119, 118, 117, 116, 115, 114, 113, 111, 110, "  &
            "109, 108, 107, 106, 105, 104, 102, 101, 100, 99, "  &
            "98, 97, 96, 95, 93 )"  &
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            "p_par64 : 92, p_c_be_l : ( 68, 58, 48, 35, 89, 88, 87, 86
),p_req64_l : 85, "  &
            "p_ack64_l : 84, p_rst_l : 75, p_clk : 72, "  &
            "p_par : 57, p_serr_l : 56, p_perr_l : 55, "  &
            "p_stop_l : 54, p_devsel_l : 53, p_trdy_l : 52, "  &
            "p_irdy_l : 50, p_frame_l : 49, p_idsel : 36, "  &
            "p_req_l : 25, p_gnt_l : 24, p_pci_int_l : 23, "  &
            "p_tdo_3 : 20, p_bypassed_l : 17, p_tx : ( 16, 15, 14, 13, 12, 11,
10, 9, 8, 7 )," &
            "p_idd_test : 6, p_ewrap : 5, p_lck_ref_l : 4, "  &
            "p_scan_en : 3, p_scan_sel : 2, p_refclk : 1, "  &
            "p_com_det : 230, p_rx : ( 229, 228, 227, 226, 224, 223, 222, 218,
217, 216 ),p_rbc1 : 225, "  &
            "p_rbc0 : 220, p_test_mode : 215 ";

attribute TAP_SCAN_IN of p_tdi : signal is true;

attribute TAP_SCAN_OUT of p_tdo : signal is true;

attribute TAP_SCAN_MODE of p_tms : signal is true;

attribute TAP_SCAN_RESET of p_trst_l : signal is true;

attribute TAP_SCAN_CLOCK of p_tck : signal is ( 1.200000e+07, BOTH );


attribute INSTRUCTION_LENGTH of tachlite : entity is 5;

attribute INSTRUCTION_OPCODE of tachlite : entity is

            "SAMPLE (00001)," &
            "BYPASS (11111)," &
            "EXTEST (00000)," &
            "highz (00111)," &
            "clamp (00110)," &
            "RAM_BISTDONE_144 (00010)," &
            "RAM_BISTDONE_544 (00011)," &
            "RAM_BISTDONE_SEST (00100)," &
            "RAM_BISTERRN_144 (00101)," &
            "RAM_BISTERRN_544 (01000)," &
            "RAM_BISTERRN_SEST (01001)," &
            "RAM_NORMAL_144 (01010)," &
            "RAM_NORMAL_544 (01011)," &
            "RAM_NORMAL_SEST (01100)," &
            "RAM_WRITE_SEST (01101)," &
            "RAM_WRITE_144 (01110)," &
            "RAM_WRITE_544 (01111)," &
            "RAM_READ_SEST (10000)," &
            "RAM_READ_144 (10001)," &
            "RAM_READ_544 (10010)," &
            "TAP_SCAN_SELECT (10011)" ;

attribute INSTRUCTION_CAPTURE of tachlite : entity is "00001";
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attribute INSTRUCTION_DISABLE of tachlite : entity is "HIGHZ";

attribute INSTRUCTION_GUARD   of tachlite : entity is "CLAMP";

attribute INSTRUCTION_PRIVATE of tachlite : entity is
"TAP_SCAN_SELECT,RAM_READ_544,RAM_READ_144,RAM_READ_SEST,RAM_WRITE_544,RAM_WRI
TE_144,RAM_WRITE_SEST,RAM_NORMAL_SEST,RAM_NORMAL_544,RAM_NORMAL_144,RAM_BISTER
RN_SEST,RAM_BISTERRN_544,RAM_BISTERRN_144,RAM_BISTDONE_SEST,RAM_BISTDONE_544,R
AM_BISTDONE_144";



attribute REGISTER_ACCESS of tachlite : entity is

"BOUNDARY (SAMPLE, EXTEST)," &
"BYPASS (CLAMP, HIGHZ, BYPASS)" ;

attribute BOUNDARY_CELLS of tachlite : entity is "BC_4, BC_2, BC_1";
attribute BOUNDARY_LENGTH of tachlite : entity is 348;

attribute BOUNDARY_REGISTER of tachlite : entity is

            -- num   cell  port  function safe [ccell disval rslt]

            "0 ( BC_1, *, controlr, 1 ) ,"  &
            "1 ( BC_1, *, controlr, 1 ) ,"  &
            "2 ( BC_1, *, controlr, 1 ) ,"  &
            "3 ( BC_1, *, controlr, 1 ) ,"  &
            "4 ( BC_1, *, controlr, 1 ) ,"  &
            "5 ( BC_1, *, controlr, 1 ) ,"  &
            "6 ( BC_1, *, controlr, 1 ) ,"  &
            "7 ( BC_1, *, controlr, 1 ) ,"  &
            "8 ( BC_1, *, controlr, 1 ) ,"  &
            "9 ( BC_1, *, controlr, 1 ) ,"  &
            "10 ( BC_1, *, controlr, 1 ) ,"  &
            "11 ( BC_1, *, controlr, 1 ) ,"  &
            "12 ( BC_1, *, controlr, 1 ) ,"  &
            "13 ( BC_1, *, controlr, 1 ) ,"  &
            "14 ( BC_1, *, controlr, 1 ) ,"  &
            "15 ( BC_1, *, controlr, 1 ) ,"  &
            "16 ( BC_1, *, controlr, 1 ) ,"  &
            "17 ( BC_1, *, controlr, 1 ) ,"  &
            "18 ( BC_1, *, controlr, 1 ) ,"  &
            "19 ( BC_1, *, controlr, 1 ) ,"  &
            "20 ( BC_1, *, controlr, 1 ) ,"  &
            "21 ( BC_1, *, controlr, 1 ) ,"  &
            "22 ( BC_1, *, controlr, 1 ) ,"  &
            "23 ( BC_1, *, controlr, 1 ) ,"  &
            "24 ( BC_1, *, controlr, 1 ) ,"  &
            "25 ( BC_1, *, controlr, 1 ) ,"  &
            "26 ( BC_1, *, controlr, 1 ) ,"  &
            "27 ( BC_1, *, controlr, 1 ) ,"  &
            "28 ( BC_1, *, controlr, 1 ) ,"  &
            "29 ( BC_1, *, controlr, 1 ) ,"  &
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"30 ( BC_1, *, controlr, 1 ) ,"  &
"31 ( BC_2, p_rx(9), input, X ) ,"  &
"32 ( BC_2, p_rx(8), input, X ) ,"  &
"33 ( BC_2, p_rx(7), input, X ) ,"  &
"34 ( BC_4, p_rbc0, clock, X ) ,"  &
"35 ( BC_2, p_rx(6), input, X ) ,"  &
"36 ( BC_2, p_rx(5), input, X ) ,"  &
"37 ( BC_2, p_rx(4), input, X ) ,"  &
"38 ( BC_4, p_rbc1, clock, X ) ,"  &
"39 ( BC_2, p_rx(3), input, X ) ,"  &
"40 ( BC_2, p_rx(2), input, X ) ,"  &
"41 ( BC_2, p_rx(1), input, X ) ,"  &
"42 ( BC_2, p_rx(0), input, X ) ,"  &
"43 ( BC_2, p_com_det, input, X ) ,"  &
"44 ( BC_4, p_refclk, clock, X ) ,"  &
"45 ( BC_4, p_scan_sel, clock, X ) ,"  &
"46 ( BC_2, p_scan_en, input, X ) ,"  &
"47 ( BC_1, p_lck_ref_l, output2, X ) ,"  &
"48 ( BC_1, p_tx(9), output2, X ) ,"  &
"49 ( BC_1, p_tx(8), output2, X ) ,"  &
"50 ( BC_1, p_tx(7), output2, X ) ,"  &
"51 ( BC_1, p_tx(6), output2, X ) ,"  &
"52 ( BC_1, p_tx(5), output2, X ) ,"  &
"53 ( BC_1, p_tx(4), output2, X ) ,"  &
"54 ( BC_1, p_tx(3), output2, X ) ,"  &
"55 ( BC_1, p_tx(2), output2, X ) ,"  &
"56 ( BC_1, p_tx(1), output2, X ) ,"  &
"57 ( BC_1, p_tx(0), output2, X ) ,"  &
"58 ( BC_1, p_bypassed_l, output2, X ) ,"  &
"59 ( BC_2, p_gpio(3), input, X ) ,"  &
"60 ( BC_2, p_gpio(2), input, X ) ,"  &
"61 ( BC_1, p_tdo_3, output2, X ) ,"  &
"62 ( BC_2, p_gnt_l, input, X ) ,"  &
"63 ( BC_1, p_req_l, output3, X , 29, 1, Z),"  &
"64 ( BC_1, p_ad(31), output3, X , 5, 1, Z),"  &
"65 ( BC_2, p_ad(31), input, X ) ,"  &
"66 ( BC_1, p_ad(30), output3, X , 5, 1, Z),"  &
"67 ( BC_2, p_ad(30), input, X ) ,"  &
"68 ( BC_1, p_ad(29), output3, X , 5, 1, Z),"  &
"69 ( BC_2, p_ad(29), input, X ) ,"  &
"70 ( BC_1, p_ad(28), output3, X , 5, 1, Z),"  &
"71 ( BC_2, p_ad(28), input, X ) ,"  &
"72 ( BC_1, p_ad(27), output3, X , 14, 1, Z),"  &
"73 ( BC_2, p_ad(27), input, X ) ,"  &
"74 ( BC_1, p_ad(26), output3, X , 14, 1, Z),"  &
"75 ( BC_2, p_ad(26), input, X ) ,"  &
"76 ( BC_1, p_ad(25), output3, X , 14, 1, Z),"  &
"77 ( BC_2, p_ad(25), input, X ) ,"  &
"78 ( BC_1, p_ad(24), output3, X , 14, 1, Z),"  &
"79 ( BC_2, p_ad(24), input, X ) ,"  &
"80 ( BC_1, p_c_be_l(3), output3, X , 21, 1, Z),"  &
"81 ( BC_2, p_c_be_l(3), input, X ) ,"  &
"82 ( BC_2, p_idsel, input, X ) ,"  &
"83 ( BC_1, p_ad(23), output3, X , 13, 1, Z),"  &
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"84 ( BC_2, p_ad(23), input, X ) ,"  &
"85 ( BC_1, p_ad(22), output3, X , 13, 1, Z),"  &
"86 ( BC_2, p_ad(22), input, X ) ,"  &
"87 ( BC_1, p_ad(21), output3, X , 13, 1, Z),"  &
"88 ( BC_2, p_ad(21), input, X ) ,"  &
"89 ( BC_1, p_ad(20), output3, X , 13, 1, Z),"  &
"90 ( BC_2, p_ad(20), input, X ) ,"  &
"91 ( BC_1, p_ad(19), output3, X , 12, 1, Z),"  &
"92 ( BC_2, p_ad(19), input, X ) ,"  &
"93 ( BC_1, p_ad(18), output3, X , 12, 1, Z),"  &
"94 ( BC_2, p_ad(18), input, X ) ,"  &
"95 ( BC_1, p_ad(17), output3, X , 12, 1, Z),"  &
"96 ( BC_2, p_ad(17), input, X ) ,"  &
"97 ( BC_1, p_ad(16), output3, X , 12, 1, Z),"  &
"98 ( BC_2, p_ad(16), input, X ) ,"  &
"99 ( BC_1, p_c_be_l(2), output3, X , 21, 1, Z),"  &
"100 ( BC_2, p_c_be_l(2), input, X ) ,"  &
"101 ( BC_1, p_frame_l, output3, X , 27, 1, Z),"  &
"102 ( BC_2, p_frame_l, input, X ) ,"  &
"103 ( BC_1, p_irdy_l, output3, X , 26, 1, Z),"  &
"104 ( BC_2, p_irdy_l, input, X ) ,"  &
"105 ( BC_1, p_trdy_l, output3, X , 2, 1, Z),"  &
"106 ( BC_2, p_trdy_l, input, X ) ,"  &
"107 ( BC_1, p_devsel_l, output3, X , 2, 1, Z),"  &
"108 ( BC_2, p_devsel_l, input, X ) ,"  &
"109 ( BC_1, p_stop_l, output3, X , 2, 1, Z),"  &
"110 ( BC_2, p_stop_l, input, X ) ,"  &
"111 ( BC_1, p_perr_l, output3, X , 24, 1, Z),"  &
"112 ( BC_2, p_perr_l, input, X ) ,"  &
"113 ( BC_1, p_par, output3, X , 25, 1, Z),"  &
"114 ( BC_2, p_par, input, X ) ,"  &
"115 ( BC_1, p_c_be_l(1), output3, X , 21, 1, Z),"  &
"116 ( BC_2, p_c_be_l(1), input, X ) ,"  &
"117 ( BC_1, p_ad(15), output3, X , 8, 1, Z),"  &
"118 ( BC_2, p_ad(15), input, X ) ,"  &
"119 ( BC_1, p_ad(14), output3, X , 8, 1, Z),"  &
"120 ( BC_2, p_ad(14), input, X ) ,"  &
"121 ( BC_1, p_ad(13), output3, X , 8, 1, Z),"  &
"122 ( BC_2, p_ad(13), input, X ) ,"  &
"123 ( BC_1, p_ad(12), output3, X , 8, 1, Z),"  &
"124 ( BC_2, p_ad(12), input, X ) ,"  &
"125 ( BC_1, p_ad(11), output3, X , 11, 1, Z),"  &
"126 ( BC_2, p_ad(11), input, X ) ,"  &
"127 ( BC_1, p_ad(10), output3, X , 11, 1, Z),"  &
"128 ( BC_2, p_ad(10), input, X ) ,"  &
"129 ( BC_1, p_ad(9), output3, X , 11, 1, Z),"  &
"130 ( BC_2, p_ad(9), input, X ) ,"  &
"131 ( BC_1, p_ad(8), output3, X , 11, 1, Z),"  &
"132 ( BC_2, p_ad(8), input, X ) ,"  &
"133 ( BC_1, p_c_be_l(0), output3, X , 21, 1, Z),"  &
"134 ( BC_2, p_c_be_l(0), input, X ) ,"  &
"135 ( BC_1, p_ad(7), output3, X , 3, 1, Z),"  &
"136 ( BC_2, p_ad(7), input, X ) ,"  &
"137 ( BC_4, p_clk, clock, X ) ,"  &
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"138 ( BC_1, p_ad(6), output3, X , 3, 1, Z),"  &
"139 ( BC_2, p_ad(6), input, X ) ,"  &
"140 ( BC_1, p_ad(5), output3, X , 3, 1, Z),"  &
"141 ( BC_2, p_ad(5), input, X ) ,"  &
"142 ( BC_1, p_ad(4), output3, X , 3, 1, Z),"  &
"143 ( BC_2, p_ad(4), input, X ) ,"  &
"144 ( BC_1, p_ad(3), output3, X , 10, 1, Z),"  &
"145 ( BC_2, p_ad(3), input, X ) ,"  &
"146 ( BC_1, p_ad(2), output3, X , 10, 1, Z),"  &
"147 ( BC_2, p_ad(2), input, X ) ,"  &
"148 ( BC_1, p_ad(1), output3, X , 10, 1, Z),"  &
"149 ( BC_2, p_ad(1), input, X ) ,"  &
"150 ( BC_1, p_ad(0), output3, X , 10, 1, Z),"  &
"151 ( BC_2, p_ad(0), input, X ) ,"  &
"152 ( BC_2, p_ack64_l, input, X ) ,"  &
"153 ( BC_1, p_req64_l, output3, X , 23, 1, Z),"  &
"154 ( BC_2, p_req64_l, input, X ) ,"  &
"155 ( BC_1, p_c_be_l(7), output3, X , 20, 1, Z),"  &
"156 ( BC_2, p_c_be_l(7), input, X ) ,"  &
"157 ( BC_1, p_c_be_l(6), output3, X , 20, 1, Z),"  &
"158 ( BC_2, p_c_be_l(6), input, X ) ,"  &
"159 ( BC_1, p_c_be_l(5), output3, X , 20, 1, Z),"  &
"160 ( BC_2, p_c_be_l(5), input, X ) ,"  &
"161 ( BC_1, p_c_be_l(4), output3, X , 20, 1, Z),"  &
"162 ( BC_2, p_c_be_l(4), input, X ) ,"  &
"163 ( BC_1, p_par64, output3, X , 30, 1, Z),"  &
"164 ( BC_2, p_par64, input, X ) ,"  &
"165 ( BC_1, p_ad(63), output3, X , 4, 1, Z),"  &
"166 ( BC_2, p_ad(63), input, X ) ,"  &
"167 ( BC_1, p_ad(62), output3, X , 4, 1, Z),"  &
"168 ( BC_2, p_ad(62), input, X ) ,"  &
"169 ( BC_1, p_ad(61), output3, X , 4, 1, Z),"  &
"170 ( BC_2, p_ad(61), input, X ) ,"  &
"171 ( BC_1, p_ad(60), output3, X , 4, 1, Z),"  &
"172 ( BC_2, p_ad(60), input, X ) ,"  &
"173 ( BC_1, p_ad(59), output3, X , 19, 1, Z),"  &
"174 ( BC_2, p_ad(59), input, X ) ,"  &
"175 ( BC_1, p_ad(58), output3, X , 19, 1, Z),"  &
"176 ( BC_2, p_ad(58), input, X ) ,"  &
"177 ( BC_1, p_ad(57), output3, X , 19, 1, Z),"  &
"178 ( BC_2, p_ad(57), input, X ) ,"  &
"179 ( BC_1, p_ad(56), output3, X , 19, 1, Z),"  &
"180 ( BC_2, p_ad(56), input, X ) ,"  &
"181 ( BC_1, p_ad(55), output3, X , 18, 1, Z),"  &
"182 ( BC_2, p_ad(55), input, X ) ,"  &
"183 ( BC_1, p_ad(54), output3, X , 18, 1, Z),"  &
"184 ( BC_2, p_ad(54), input, X ) ,"  &
"185 ( BC_1, p_ad(53), output3, X , 18, 1, Z),"  &
"186 ( BC_2, p_ad(53), input, X ) ,"  &
"187 ( BC_1, p_ad(52), output3, X , 18, 1, Z),"  &
"188 ( BC_2, p_ad(52), input, X ) ,"  &
"189 ( BC_1, p_ad(51), output3, X , 17, 1, Z),"  &
"190 ( BC_2, p_ad(51), input, X ) ,"  &
"191 ( BC_1, p_ad(50), output3, X , 17, 1, Z),"  &
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"192 ( BC_2, p_ad(50), input, X ) ,"  &
"193 ( BC_1, p_ad(49), output3, X , 17, 1, Z),"  &
"194 ( BC_2, p_ad(49), input, X ) ,"  &
"195 ( BC_1, p_ad(48), output3, X , 17, 1, Z),"  &
"196 ( BC_2, p_ad(48), input, X ) ,"  &
"197 ( BC_1, p_ad(47), output3, X , 6, 1, Z),"  &
"198 ( BC_2, p_ad(47), input, X ) ,"  &
"199 ( BC_1, p_ad(46), output3, X , 6, 1, Z),"  &
"200 ( BC_2, p_ad(46), input, X ) ,"  &
"201 ( BC_1, p_ad(45), output3, X , 6, 1, Z),"  &
"202 ( BC_2, p_ad(45), input, X ) ,"  &
"203 ( BC_1, p_ad(44), output3, X , 6, 1, Z),"  &
"204 ( BC_2, p_ad(44), input, X ) ,"  &
"205 ( BC_1, p_ad(43), output3, X , 16, 1, Z),"  &
"206 ( BC_2, p_ad(43), input, X ) ,"  &
"207 ( BC_1, p_ad(42), output3, X , 16, 1, Z),"  &
"208 ( BC_2, p_ad(42), input, X ) ,"  &
"209 ( BC_1, p_ad(41), output3, X , 16, 1, Z),"  &
"210 ( BC_2, p_ad(41), input, X ) ,"  &
"211 ( BC_1, p_ad(40), output3, X , 16, 1, Z),"  &
"212 ( BC_2, p_ad(40), input, X ) ,"  &
"213 ( BC_1, p_ad(39), output3, X , 15, 1, Z),"  &
"214 ( BC_2, p_ad(39), input, X ) ,"  &
"215 ( BC_1, p_ad(38), output3, X , 15, 1, Z),"  &
"216 ( BC_2, p_ad(38), input, X ) ,"  &
"217 ( BC_1, p_ad(37), output3, X , 15, 1, Z),"  &
"218 ( BC_2, p_ad(37), input, X ) ,"  &
"219 ( BC_1, p_ad(36), output3, X , 15, 1, Z),"  &
"220 ( BC_2, p_ad(36), input, X ) ,"  &
"221 ( BC_1, p_ad(35), output3, X , 9, 1, Z),"  &
"222 ( BC_2, p_ad(35), input, X ) ,"  &
"223 ( BC_1, p_ad(34), output3, X , 9, 1, Z),"  &
"224 ( BC_2, p_ad(34), input, X ) ,"  &
"225 ( BC_1, p_ad(33), output3, X , 9, 1, Z),"  &
"226 ( BC_2, p_ad(33), input, X ) ,"  &
"227 ( BC_1, p_ad(32), output3, X , 9, 1, Z),"  &
"228 ( BC_2, p_ad(32), input, X ) ,"  &
"229 ( BC_1, p_ram_ce_l, output2, X ) ,"  &
"230 ( BC_1, p_heartbeat, output2, X ) ,"  &
"231 ( BC_1, p_ram_we_l(3), output2, X ) ,"  &
"232 ( BC_1, p_ram_we_l(2), output2, X ) ,"  &
"233 ( BC_1, p_ram_we_l(1), output2, X ) ,"  &
"234 ( BC_1, p_ram_we_l(0), output2, X ) ,"  &
"235 ( BC_1, p_mpar(3), output3, X , 1, 1, Z),"  &
"236 ( BC_2, p_mpar(3), input, X ) ,"  &
"237 ( BC_1, p_mpar(2), output3, X , 1, 1, Z),"  &
"238 ( BC_2, p_mpar(2), input, X ) ,"  &
"239 ( BC_1, p_mpar(1), output3, X , 1, 1, Z),"  &
"240 ( BC_2, p_mpar(1), input, X ) ,"  &
"241 ( BC_1, p_mpar(0), output3, X , 1, 1, Z),"  &
"242 ( BC_2, p_mpar(0), input, X ) ,"  &
"243 ( BC_1, p_md(31), output3, X , 1, 1, Z),"  &
"244 ( BC_2, p_md(31), input, X ) ,"  &
"245 ( BC_1, p_md(30), output3, X , 1, 1, Z),"  &
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"246 ( BC_2, p_md(30), input, X ) ,"  &
"247 ( BC_1, p_md(29), output3, X , 1, 1, Z),"  &
"248 ( BC_2, p_md(29), input, X ) ,"  &
"249 ( BC_1, p_md(28), output3, X , 1, 1, Z),"  &
"250 ( BC_2, p_md(28), input, X ) ,"  &
"251 ( BC_1, p_md(27), output3, X , 1, 1, Z),"  &
"252 ( BC_2, p_md(27), input, X ) ,"  &
"253 ( BC_1, p_md(26), output3, X , 1, 1, Z),"  &
"254 ( BC_2, p_md(26), input, X ) ,"  &
"255 ( BC_1, p_md(25), output3, X , 1, 1, Z),"  &
"256 ( BC_2, p_md(25), input, X ) ,"  &
"257 ( BC_1, p_md(24), output3, X , 1, 1, Z),"  &
"258 ( BC_2, p_md(24), input, X ) ,"  &
"259 ( BC_1, p_md(23), output3, X , 1, 1, Z),"  &
"260 ( BC_2, p_md(23), input, X ) ,"  &
"261 ( BC_1, p_md(22), output3, X , 1, 1, Z),"  &
"262 ( BC_2, p_md(22), input, X ) ,"  &
"263 ( BC_1, p_md(21), output3, X , 1, 1, Z),"  &
"264 ( BC_2, p_md(21), input, X ) ,"  &
"265 ( BC_1, p_md(20), output3, X , 1, 1, Z),"  &
"266 ( BC_2, p_md(20), input, X ) ,"  &
"267 ( BC_1, p_md(19), output3, X , 1, 1, Z),"  &
"268 ( BC_2, p_md(19), input, X ) ,"  &
"269 ( BC_1, p_md(18), output3, X , 1, 1, Z),"  &
"270 ( BC_2, p_md(18), input, X ) ,"  &
"271 ( BC_1, p_md(17), output3, X , 1, 1, Z),"  &
"272 ( BC_2, p_md(17), input, X ) ,"  &
"273 ( BC_1, p_md(16), output3, X , 1, 1, Z),"  &
"274 ( BC_2, p_md(16), input, X ) ,"  &
"275 ( BC_1, p_md(15), output3, X , 1, 1, Z),"  &
"276 ( BC_2, p_md(15), input, X ) ,"  &
"277 ( BC_1, p_md(14), output3, X , 1, 1, Z),"  &
"278 ( BC_2, p_md(14), input, X ) ,"  &
"279 ( BC_1, p_md(13), output3, X , 1, 1, Z),"  &
"280 ( BC_2, p_md(13), input, X ) ,"  &
"281 ( BC_1, p_md(12), output3, X , 1, 1, Z),"  &
"282 ( BC_2, p_md(12), input, X ) ,"  &
"283 ( BC_1, p_md(11), output3, X , 1, 1, Z),"  &
"284 ( BC_2, p_md(11), input, X ) ,"  &
"285 ( BC_1, p_md(10), output3, X , 1, 1, Z),"  &
"286 ( BC_2, p_md(10), input, X ) ,"  &
"287 ( BC_1, p_md(9), output3, X , 1, 1, Z),"  &
"288 ( BC_2, p_md(9), input, X ) ,"  &
"289 ( BC_1, p_md(8), output3, X , 1, 1, Z),"  &
"290 ( BC_2, p_md(8), input, X ) ,"  &
"291 ( BC_1, p_md(7), output3, X , 1, 1, Z),"  &
"292 ( BC_2, p_md(7), input, X ) ,"  &
"293 ( BC_1, p_md(6), output3, X , 1, 1, Z),"  &
"294 ( BC_2, p_md(6), input, X ) ,"  &
"295 ( BC_1, p_md(5), output3, X , 1, 1, Z),"  &
"296 ( BC_2, p_md(5), input, X ) ,"  &
"297 ( BC_1, p_md(4), output3, X , 1, 1, Z),"  &
"298 ( BC_2, p_md(4), input, X ) ,"  &
"299 ( BC_1, p_md(3), output3, X , 1, 1, Z),"  &
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                "300 ( BC_2, p_md(3), input, X ) ,"  &
                "301 ( BC_1, p_md(2), output3, X , 1, 1, Z),"  &
                "302 ( BC_2, p_md(2), input, X ) ,"  &
                "303 ( BC_1, p_md(1), output3, X , 1, 1, Z),"  &
                "304 ( BC_2, p_md(1), input, X ) ,"  &
                "305 ( BC_1, p_md(0), output3, X , 1, 1, Z),"  &
                "306 ( BC_2, p_md(0), input, X ) ,"  &
                "307 ( BC_1, p_madr_o(17), output3, X , 7, 1, Z),"  &
                "308 ( BC_1, p_madr_o(16), output3, X , 7, 1, Z),"  &
                "309 ( BC_1, p_madr_o(15), output3, X , 7, 1, Z),"  &
                "310 ( BC_1, p_madr_o(14), output3, X , 7, 1, Z),"  &
                "311 ( BC_1, p_madr_o(13), output3, X , 7, 1, Z),"  &
                "312 ( BC_1, p_madr_o(12), output3, X , 7, 1, Z),"  &
                "313 ( BC_1, p_madr_io(11), output3, X , 7, 1, Z),"  &
                "314 ( BC_2, p_madr_io(11), input, X ) ,"  &
                "315 ( BC_1, p_madr_io(10), output3, X , 7, 1, Z),"  &
                "316 ( BC_2, p_madr_io(10), input, X ) ,"  &
                "317 ( BC_1, p_madr_io(9), output3, X , 7, 1, Z),"  &
                "318 ( BC_2, p_madr_io(9), input, X ) ,"  &
                "319 ( BC_1, p_madr_io(8), output3, X , 7, 1, Z),"  &
                "320 ( BC_2, p_madr_io(8), input, X ) ,"  &
                "321 ( BC_1, p_madr_io(7), output3, X , 7, 1, Z),"  &
                "322 ( BC_2, p_madr_io(7), input, X ) ,"  &
                "323 ( BC_1, p_madr_io(6), output3, X , 7, 1, Z),"  &
                "324 ( BC_2, p_madr_io(6), input, X ) ,"  &
                "325 ( BC_1, p_madr_io(5), output3, X , 7, 1, Z),"  &
                "326 ( BC_2, p_madr_io(5), input, X ) ,"  &
                "327 ( BC_1, p_madr_io(4), output3, X , 7, 1, Z),"  &
                "328 ( BC_2, p_madr_io(4), input, X ) ,"  &
                "329 ( BC_1, p_madr_io(3), output3, X , 7, 1, Z),"  &
                "330 ( BC_2, p_madr_io(3), input, X ) ,"  &
                "331 ( BC_1, p_madr_io(2), output3, X , 7, 1, Z),"  &
                "332 ( BC_2, p_madr_io(2), input, X ) ,"  &
                "333 ( BC_1, p_madr_io(1), output3, X , 7, 1, Z),"  &
                "334 ( BC_2, p_madr_io(1), input, X ) ,"  &
                "335 ( BC_1, p_madr_o0, output3, X , 7, 1, Z),"  &
                "336 ( BC_1, p_moe_l, output2, X ) ,"  &
                "337 ( BC_1, p_rom_we_l, output2, X ) ,"  &
                "338 ( BC_1, p_rom_ce_l, output2, X ) ,"  &
                "339 ( BC_1, p_rom_vpp_en, output2, X ) ,"  &
                "340 ( BC_1, p_tdo_1, output2, X ) ,"  &
                "341 ( BC_2, p_gpio(1), input, X ) ,"  &
                "342 ( BC_2, p_gpio(0), input, X ) ,"  &
                "343 ( BC_1, p_dir_reset, output2, X ) ,"  &
                "344 ( BC_2, p_mbg_l, input, X ) ,"  &
                "345 ( BC_2, p_tdi_1, input, X ) ,"  &
                "346 ( BC_2, p_tdi_3, input, X ) ,"  &
                "347 ( BC_2, p_tdi_2, input, X ) ";

end tachlite;
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