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----------------------------------------------------------------
--  BSDL model for ISSI's IS61LPS/LPD/VPS/VPD/VF/LF25636 Synchronous SRAM
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--  Revision History: Rev0.0 (9/6/05)
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entity IS61LXXVXX25636 is

    generic (PHYSICAL_PIN_MAP : string := "BGA_11x15");

    port (   A    :   in       bit_vector(0 to 17);
        ADV_b    :   in       bit;
        ADSP_b   :   in       bit;
        ADSC_b   :   in       bit;
        GW_b     :   in       bit;
        BW_A_b   :   in       bit;
        BW_B_b   :   in       bit;
        BW_C_b   :   in       bit;
        BW_D_b   :   in       bit;
        CLK      :   in       bit;
        DP_A     :   in       bit;
        DP_B     :   in       bit;
        DP_C     :   in       bit;
        DP_D     :   in       bit;
        DQ_A     :   in       bit_vector(0 to 7);
        DQ_B     :   in       bit_vector(0 to 7);
        DQ_C     :   in       bit_vector(0 to 7);
        DQ_D     :   in       bit_vector(0 to 7);
        CE_b     :   in       bit;
        CE2      :   in       bit;
        CE2_b    :   in       bit;
        TCK      :   in       bit;
        TDI      :   in       bit;
        TDO      :   out      bit;
        TMS      :   in       bit;
        MODE     :   in       bit;
        OE_b     :   in       bit;
        BWE_b    :   in       bit;
        NC       :   linkage  bit_vector(0 to 17);
        Vdd      :   linkage  bit_vector(0 to 17);
        Vddq     :   linkage  bit_vector(0 to 19);
        Vss      :   linkage  bit_vector(0 to 34);
        ZZ       :   in       bit);

    use STD_1149_1_1994.all;

    attribute COMPONENT_CONFORMANCE of IS61LXXVXX25636 : entity is
        "STD_1149_1_1993";

    attribute PIN_MAP of IS61LXXVXX25636 : entity is
        PHYSICAL_PIN_MAP;

        constant BGA_11x15: PIN_MAP_STRING :=

    " A: (R6, P6, P4, R4, R3, A10, R11, R10, P10, P9, R9, R8, P8," &
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"                   P3, A2, P11, B2, B10),          " &
" ADV_b:     A9,                        " &
" ADSP_b:    B9,                        " &
" ADSC_b:    A8,                        " &
" GW_b:      B7,                        " &
" BWE_b:     A7,                        " &
" BW_A_b:    B5,                        " &
" BW_B_b:    A5,                        " &
" BW_C_b:    A4,                        " &
" BW_D_b:    B4,                        " &
" CLK:       B6,                        " &
" DP_A:      N11,                       " &
" DP_B:       C11,                      " &
" DP_C:       C1,                       " &
" DP_D:      N1,                        " &
" DQ_A:      (J10, K10, L10, M10, J11, K11, L11, M11),    " &
" DQ_B:      (D10, E10, F10, G10, D11, E11, F11, G11),    " &
" DQ_C:      (G2, F2, E2, D2, G1, F1, E1, D1),         " &
" DQ_D:      (M2, L2, K2, J2, M1, L1, K1, J1),         " &
" CE_b:      A3,                        " &
" CE2:       B3,                        " &
" CE2_b:     A6,                        " &
" TCK:       R7,                        " &
" TDI:       P5,                        " &
" TDO:       P7,                        " &
" TMS:       R5,                        " &
" MODE:      R1,                        " &
" OE_b:      B8,                        " &
" NC:  (A1, B1, H1, P1, C2, N2, P2, R2, H3, N5, N6, N7, H9, " &
"      C10, H10, N10, A11, B11),              " &
" Vdd: (D4, D8, E4, E8, F4, F8, G4, G8, H4, H8, J4, J8, K4, " &
"      K8, L4, L8, M4, M8),              " &
" Vddq: (C3, D3, E3, F3, G3, J3, K3, L3, M3, N3, C9, D9, E9, " &
"       F9, G9, J9, K9, L9, M9, N9),             " &
" Vss: (C4, N4, C5, D5, E5, F5, G5, H5, J5, K5, L5, M5, C6, " &
"      D6, E6, F6, G6, H6, J6, K6, L6, M6, C7, D7, E7, F7, " &
"      G7, H7, J7, K7, L7, M7, C8, N8, H2),          " &
" ZZ:        H11                   " ;

    attribute TAP_SCAN_IN      of   TDI : signal is true;
    attribute TAP_SCAN_OUT     of   TDO : signal is true;
    attribute TAP_SCAN_MODE     of   TMS : signal is true;
    attribute TAP_SCAN_CLOCK    of   TCK : signal is (100.0e6, BOTH);

    attribute INSTRUCTION_LENGTH  of   IS61LXXVXX25636 : entity is 3;

    attribute INSTRUCTION_OPCODE   of   IS61LXXVXX25636 : entity is
        "EXTEST      (000),   " &
        "IDCODE      (001),   " &
        "SAMPLEZ      (010),   " &
        "SAMPLE      (100),   " &
        "BYPASS      (111)    " ;

    attribute INSTRUCTION_CAPTURE   of   IS61LXXVXX25636 : entity is "001";

    attribute IDCODE_REGISTER   of   IS61LXXVXX25636 : entity is
        "0000"           &   -- Die Revision Code
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    "0011100100"        &   -- Defines depth and width
    "000000"            &   -- vendor definition
    "00011010101"       &   -- ISSI JEDEC ID
    "1"                 ;   -- Presence Register


attribute REGISTER_ACCESS    of   IS61LXXVXX25636 : entity is
    "BOUNDARY   (EXTEST, SAMPLE, SAMPLEZ),   " &
    "BYPASS      (BYPASS)         " ;

attribute BOUNDARY_LENGTH   of   IS61LXXVXX25636 :   entity is 75;

attribute BOUNDARY_REGISTER   of   IS61LXXVXX25636 : entity is

"0   (BC_4,   MODE,           input,     X),   " &
"1   (BC_4,   *,              internal,  X),   " &
"2   (BC_4,   A(15),          input,     X),   " &
"3   (BC_4,   A(12),          input,     X),   " &
"4   (BC_4,   A(11),          input,     X),   " &
"5   (BC_4,   A(10),          input,     X),   " &
"6   (BC_4,   A(9),           input,     X),   " &
"7   (BC_4,   A(8),           input,     X),   " &
"8   (BC_4,   A(7),           input,     X),   " &
"9   (BC_4,   A(6),           input,     X),   " &
"10  (BC_4,   ZZ,             input,     X),   " &
"11  (BC_4,   DP_A,           input,     X),   " &
"12  (BC_4,   DQ_A(7),        input,     X),   " &
"13  (BC_4,   DQ_A(6),        input,     X),   " &
"14  (BC_4,   DQ_A(5),        input,     X),   " &
"15  (BC_4,   DQ_A(4),        input,     X),   " &
"16  (BC_4,   DQ_A(3),        input,     X),   " &
"17  (BC_4,   DQ_A(2),        input,     X),   " &
"18  (BC_4,   DQ_A(1),        input,     X),   " &
"19  (BC_4,   DQ_A(0),        input,     X),   " &
"20  (BC_4,   DQ_B(7),        input,     X),   " &
"21  (BC_4,   DQ_B(6),        input,     X),   " &
"22  (BC_4,   DQ_B(5),        input,     X),   " &
"23  (BC_4,   DQ_B(4),        input,     X),   " &
"24  (BC_4,   DQ_B(3),        input,     X),   " &
"25  (BC_4,   DQ_B(2),        input,     X),   " &
"26  (BC_4,   DQ_B(1),        input,     X),   " &
"27  (BC_4,   DQ_B(0),        input,     X),   " &
"28  (BC_4,   DP_B,           input,     X),   " &
"29  (BC_4,   *,              internal,  X),   " &
"30  (BC_4,   A(5),           input,     X),   " &
"31  (BC_4,   A(17),          input,     X),   " &
"32  (BC_4,   ADV_b,          input,     X),   " &
"33  (BC_4,   ADSP_b,         input,     X),   " &
"34  (BC_4,   ADSC_b,         input,     X),   " &
"35  (BC_4,   OE_b,           input,     X),   " &
"36  (BC_4,   BWE_b,          input,     X),   " &
"37  (BC_4,   GW_b,           input,     X),   " &
"38  (BC_4,   CLK,            input,     X),   " &
"39  (BC_4,   *,              internal,  X),   " &
"40  (BC_4,   *,              internal,  X),   " &
"41  (BC_4,   CE2_b,          input,     X),   " &
"42  (BC_4,   BW_A_b,         input,     X),   " &
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"43   (BC_4,   BW_B_b,          input,      X),    " &
"44   (BC_4,   BW_C_b,          input,      X),    " &
"45   (BC_4,   BW_D_b,          input,      X),    " &
"46   (BC_4,   CE2,             input,      X),    " &
"47   (BC_4,   CE_b,            input,      X),    " &
"48   (BC_4,   A(14),           input,      X),    " &
"49   (BC_4,   A(16),           input,      X),    " &
"50   (BC_4,   *,               internal,   X),    " &
"51   (BC_4,   DP_C,            input,      X),    " &
"52   (BC_4,   DQ_C(7),         input,      X),    " &
"53   (BC_4,   DQ_C(6),         input,      X),    " &
"54   (BC_4,   DQ_C(5),         input,      X),    " &
"55   (BC_4,   DQ_C(4),         input,      X),    " &
"56   (BC_4,   DQ_C(3),         input,      X),    " &
"57   (BC_4,   DQ_C(2),         input,      X),    " &
"58   (BC_4,   DQ_C(1),         input,      X),    " &
"59   (BC_4,   DQ_C(0),         input,      X),    " &
"60   (BC_4,   DQ_D(7),         input,      X),    " &
"61   (BC_4,   DQ_D(6),         input,      X),    " &
"62   (BC_4,   DQ_D(5),         input,      X),    " &
"63   (BC_4,   DQ_D(4),         input,      X),    " &
"64   (BC_4,   DQ_D(3),         input,      X),    " &
"65   (BC_4,   DQ_D(2),         input,      X),    " &
"66   (BC_4,   DQ_D(1),         input,      X),    " &
"67   (BC_4,   DQ_D(0),         input,      X),    " &
"68   (BC_4,   DP_D,            input,      X),    " &
"69   (BC_4,   A(13),           input,      X),    " &
"70   (BC_4,   A(4),            input,      X),    " &
"71   (BC_4,   A(3),            input,      X),    " &
"72   (BC_4,   A(2),            input,      X),    " &
"73   (BC_4,   A(1),            input,      X),    " &
"74   (BC_4,   A(0),            input,      X)     " ;

      attribute DESIGN_WARNING of IS61LXXVXX25636:entity is
      "WARNING: THIS DEVICE OPERATES ON A SUBSET OF IEEE STANDARD 1149.1, "&
            "THE JTAG INSTRUCTIONS EXTEST IS NOT 1149.1 COMPLIANT.";


end IS61LXXVXX25636;
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