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ENTITY sff1_x4 IS
GENERIC (
    CONSTANT area          : NATURAL := 4500;
    CONSTANT cin_ck       : NATURAL := 8;
    CONSTANT cin_i        : NATURAL := 8;
    CONSTANT rdown_ck_q   : NATURAL := 800;
    CONSTANT rup_ck_q     : NATURAL := 890;
    CONSTANT taf_ck_q     : NATURAL := 500;
    CONSTANT tar_ck_q     : NATURAL := 500;
    CONSTANT thf_i_ck     : NATURAL := 0;
    CONSTANT thr_i_ck     : NATURAL := 0;
    CONSTANT tsf_i_ck     : NATURAL := 585;
    CONSTANT tsr_i_ck     : NATURAL := 476;
    CONSTANT transistors  : NATURAL := 26
);
PORT (
    ck      : IN  BIT;
    i       : IN  BIT;
    q       : OUT BIT;
    vdd     : IN  BIT;
    vss     : IN  BIT
);
END sff1_x4;

ARCHITECTURE vbe OF sff1_x4 IS
    SIGNAL sff_m : REG_BIT REGISTER;

BEGIN
    ASSERT (vdd AND NOT (vss))
    REPORT "power supply is missing on sff1_x4"
    SEVERITY WARNING;

    label0 : BLOCK ((ck AND NOT (ck'STABLE)) = '1')
    BEGIN
        sff_m <= GUARDED i;
    END BLOCK label0;

    q <= sff_m after 1700 ps;
END;

```