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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;

```