```
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
; This is the .eqn file produced by the partitioner.  It shows      ;
; how your equations were implemented in order to best utilize the  ;
; resources available on the chip.  Note that certain equations     ;
; are now active low so that they are eligible to be placed in      ;
; a fast function block.                                             ;
;                                                                    ;
; This design was compiled for the 73144160                         ;
;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;


PATTERN hbspybuf.eqn

DATE  Mon Sep 27 13:22:04 1999

CHIP HBSPYBUF XEPLD

MINIMIZE OFF
LOGIC_OPT OFF
OPTIONS OFF UIM_OPT REG_OPT CLOCK_OPT FOE_OPT


PARTITION FB3_1 "SBCS/U60/UCEO1:O" "SPYBUFCE/U13:Q" IVDATA0
                    "SPYBUFCE/U68:Q" RSPYWE_
PARTITION FB3_7 OSPYWE_
PARTITION FB3_9 HSPYWE_

PARTITION FB4_3 IVDATA4
PARTITION FB4_5 IVDATA3
PARTITION FB4_7 IVDATA2
PARTITION FB4_9 IVDATA1

PARTITION FB2_1 IVDATA17 IVDATA16 IVDATA15 IVDATA14 IVDATA13 IVDATA12
                    OSPYCS_ IFREEZE

PARTITION FB1_1 IVDATA18 IVDATA11 IVDATA10 IVDATA9 IVDATA8 IVDATA7
                    IVDATA6 IVDATA5 ENSPY

PARTITION FB5_1 "SBCS/U60/U9:Q" "SBCS/U60/U10:Q" "SBCS/U60/U11:Q"
                    "SBCS/U60/U12:Q" "SBCS/U60/U13:Q"
                    "SBCS/U60/U14:Q" "SBCS/U60/U15:Q"
                    "SBCS/U60/U16:Q" "SBCS/U60/U17:Q"

PARTITION FB6_1 "SBCS/U46/U9:Q" "SBCS/U46/U10:Q" "SBCS/U46/U11:Q"
                    "SBCS/U46/U12:Q" "SBCS/U46/U13:Q"
                    "SBCS/U46/U14:Q" "SBCS/U46/U15:Q"
                    "SBCS/U46/U16:Q" "SBCS/U46/U17:Q"

PARTITION FB13_1 "SBCS/U60/U4:Q" "SBCS/U60/U5:Q" "SBCS/U60/U6:Q"
                    "SBCS/U60/U7:Q" "SBCS/U60/U8:Q" SPYADD3 SPYADD2
                    SPYADD1 SPYADD0

PARTITION FB8_1 "SBCS/U46/U2:Q" "SBCS/U46/U3:Q" "SBCS/U46/U4:Q"
                    "SBCS/U46/U8:Q" "SBCS/U46/U1:Q" SPYADD7 SPYADD6
                    SPYADD5 SPYADD4

PARTITION FB14_1 SPYADD10 SPYADD9 "SBCS/U54/U3:Q" "SBCS/U54/U4:Q"
                    SPYADD8 OSPYADD9 OSPYADD8 OSPYADD0 HSPYCS_

PARTITION FB7_1 SPYADD14 SPYADD13 SPYADD12 SPYADD11 "SBCS/U54/U1:Q"
                    OSPYADD14 OSPYADD13 OSPYADD12 OSPYADD11
```



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PARTITION FB10_1 SPYADD15 OSPYADD15 OSPYADD6 OSPYADD4 OSPYADD3
                    OSPYADD2 OSPYADD1 "SBCS/U54/U7:Q" "SBCS/U54/U8:Q"

PARTITION FB11_1 SPYADD16 RSPYCS_ OSPYADD16 OSPYADD10 OSPYADD7
                    OSPYADD5 "SBCS/U60/U2:Q" "SBCS/U60/U3:Q"
                    "SBCS/U60/U1:Q"

PARTITION FB12_1 "SBCS/U54/U9:Q" "SBCS/U54/U10:Q" "SBCS/U54/U11:Q"
                    "SBCS/U54/U12:Q" "SBCS/U54/U13:Q"
                    "SBCS/U54/U14:Q" "SBCS/U54/U15:Q"
                    "SBCS/U54/U16:Q" "SBCS/U54/U17:Q"

PARTITION FB15_1 "SBCS/U113:Q" "SBCS/U110:Q" "SBCS/U54/U2:Q"
                    "SBCS/U54/U5:Q" "SBCS/U54/U6:Q" "SBCS/U46/U5:Q"
                    "SBCS/U46/U6:Q" "SBCS/U46/U7:Q" "SPYBUFCE/U23:Q"

PARTITION FB16_1 "SBCS/U108:Q"

INPUTPIN  ( FI ) PUSH NCLKR
INPUTPIN ( LE = NCLK  ) LFLE
INPUTPIN  ( FI ) DNCLKR
INPUTPIN WR_ RSPYVME RSPYREGW OSPYVME OSPYREGW IVADD16 IVADD15
                   IVADD14 IVADD13 IVADD12 IVADD11 IVADD10 IVADD9
                   IVADD8 IVADD7 IVADD6 IVADD5 IVADD4 IVADD3 IVADD2
                   IVADD1 IVADD0 HSPYVME HSPYREGW FRZVME FREEZE_
OUTPUTPIN ( FOE = SPYREGR ) IVDATA18 IVDATA17 IVDATA16 IVDATA15
                   IVDATA14 IVDATA13 IVDATA12 IVDATA11 IVDATA10
                   IVDATA9 IVDATA8 IVDATA7 IVDATA6 IVDATA5 IVDATA4
                   IVDATA3 IVDATA2 IVDATA1 IVDATA0
OUTPUTPIN  SPYADD16 SPYADD15 SPYADD14 SPYADD13 SPYADD12 SPYADD11
                   SPYADD10 SPYADD9 SPYADD8 SPYADD7 SPYADD6 SPYADD5
                   SPYADD4 SPYADD3 SPYADD2 SPYADD1 SPYADD0 RSPYWE_
                   RSPYCS_ OSPYWE_ OSPYCS_ OSPYADD16 OSPYADD15
                   OSPYADD14 OSPYADD13 OSPYADD12 OSPYADD11 OSPYADD10
                   OSPYADD9 OSPYADD8 OSPYADD7 OSPYADD6 OSPYADD5
                   OSPYADD4 OSPYADD3 OSPYADD2 OSPYADD1 OSPYADD0
                   IFREEZE HSPYWE_ HSPYCS_ ENSPY

NODE "SBCS/U113:Q" "SBCS/U108:Q" "SBCS/U110:Q" "SBCS/U54/U2:Q"
                   "SBCS/U54/U3:Q" "SBCS/U54/U4:Q" "SBCS/U54/U5:Q"
                   "SBCS/U54/U6:Q" "SBCS/U54/U7:Q" "SBCS/U54/U8:Q"
                   "SBCS/U54/U9:Q" "SBCS/U54/U10:Q" "SBCS/U54/U11:Q"
                   "SBCS/U54/U12:Q" "SBCS/U54/U13:Q"
                   "SBCS/U54/U14:Q" "SBCS/U54/U15:Q"
                   "SBCS/U54/U16:Q" "SBCS/U54/U17:Q"
NODE (UIM) "SBCS/U54/UCEO1:O"
NODE "SBCS/U46/U2:Q" "SBCS/U46/U3:Q" "SBCS/U46/U4:Q" "SBCS/U46/U5:Q"
                   "SBCS/U46/U6:Q" "SBCS/U46/U7:Q" "SBCS/U46/U8:Q"
                   "SBCS/U46/U9:Q" "SBCS/U46/U10:Q" "SBCS/U46/U11:Q"
                   "SBCS/U46/U12:Q" "SBCS/U46/U13:Q"
                   "SBCS/U46/U14:Q" "SBCS/U46/U15:Q"
                   "SBCS/U46/U16:Q" "SBCS/U46/U17:Q"
NODE (UIM) "SBCS/U46/UCEO1:O"
NODE "SBCS/U60/U2:Q" "SBCS/U60/U3:Q" "SBCS/U60/U4:Q" "SBCS/U60/U5:Q"
                   "SBCS/U60/U6:Q" "SBCS/U60/U7:Q" "SBCS/U60/U8:Q"
                   "SBCS/U60/U9:Q" "SBCS/U60/U10:Q" "SBCS/U60/U11:Q"
                   "SBCS/U60/U12:Q" "SBCS/U60/U13:Q"
                   "SBCS/U60/U14:Q" "SBCS/U60/U15:Q"
                   "SBCS/U60/U16:Q" "SBCS/U60/U17:Q"
                   "SBCS/U60/UCEO1:O" "SPYBUFCE/U13:Q"
                   "SPYBUFCE/U68:Q" "SPYBUFCE/U23:Q" "SBCS/U54/U1:Q"
                   "SBCS/U46/U1:Q" "SBCS/U60/U1:Q"
```

```
NODE (UIM) UIM_0 UIM_1 UIM_2 UIM_3 UIM_4 UIM_5
FASTCLOCK NCLK CLK
FOEPIN SPYREGR




EQUATIONS
 "SBCS/U113:Q" :=  "SBCS/U113:Q".D1 Or "SBCS/U113:Q".D2  ; High density function
 block

   "SBCS/U113:Q".D1 =  "SBCS/U54/UCEO1:O" */"SBCS/U113:Q"
   "SBCS/U113:Q".D2 = Gnd
   "SBCS/U113:Q".CLKF =  CLK
   "SBCS/U113:Q".RSTF =  OSPYREGW
   "SBCS/U113:Q".FBK =  "SBCS/U113:Q"
   "SBCS/U113:Q".PRLD =  GND


 "SBCS/U108:Q" :=  "SBCS/U108:Q".D1 Or "SBCS/U108:Q".D2  ; High density function
 block

   "SBCS/U108:Q".D1 =  "SBCS/U60/UCEO1:O" */"SBCS/U108:Q"
   "SBCS/U108:Q".D2 = Gnd
   "SBCS/U108:Q".CLKF =  NCLK
   "SBCS/U108:Q".RSTF =  HSPYREGW
   "SBCS/U108:Q".FBK =  "SBCS/U108:Q"
   "SBCS/U108:Q".PRLD =  GND


 "SBCS/U110:Q" :=  "SBCS/U110:Q".D1 Or "SBCS/U110:Q".D2  ; High density function
 block

   "SBCS/U110:Q".D1 =  "SBCS/U46/UCEO1:O" */"SBCS/U110:Q"
   "SBCS/U110:Q".D2 = Gnd
   "SBCS/U110:Q".CLKF =  NCLK
   "SBCS/U110:Q".RSTF =  RSPYREGW
   "SBCS/U110:Q".FBK =  "SBCS/U110:Q"
   "SBCS/U110:Q".PRLD =  GND


 "SBCS/U54/U2:Q" :=  "SBCS/U54/U2:Q".D1 Xor "SBCS/U54/U2:Q".D2  ; High density f
unction block

   "SBCS/U54/U2:Q".D1 =  ENSPY * UIM_4
   "SBCS/U54/U2:Q".D2 = Gnd
   "SBCS/U54/U2:Q".CLKF =  NCLK
   "SBCS/U54/U2:Q".RSTF =  OSPYREGW
   "SBCS/U54/U2:Q".FBK = Vcc

 "SBCS/U54/U3:Q" :=  "SBCS/U54/U3:Q".D1 Xor "SBCS/U54/U3:Q".D2  ; High density f
unction block

   "SBCS/U54/U3:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54/
U2:Q"
   "SBCS/U54/U3:Q".D2 = Gnd
   "SBCS/U54/U3:Q".CLKF =  NCLK
   "SBCS/U54/U3:Q".RSTF =  OSPYREGW
   "SBCS/U54/U3:Q".FBK = Vcc

 "SBCS/U54/U4:Q" :=  "SBCS/U54/U4:Q".D1 Xor "SBCS/U54/U4:Q".D2  ; High density f
unction block
```



```
   "SBCS/U54/U4:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54/
U2:Q"
           * "SBCS/U54/U3:Q"
   "SBCS/U54/U4:Q".D2 = Gnd
   "SBCS/U54/U4:Q".CLKF =  NCLK
   "SBCS/U54/U4:Q".RSTF =  OSPYREGW
   "SBCS/U54/U4:Q".FBK = Vcc

 "SBCS/U54/U5:Q" :=  "SBCS/U54/U5:Q".D1 Xor "SBCS/U54/U5:Q".D2  ; High density f
unction block

   "SBCS/U54/U5:Q".D1 =  ENSPY * UIM_4 * UIM_5
   "SBCS/U54/U5:Q".D2 = Gnd
   "SBCS/U54/U5:Q".CLKF =  NCLK
   "SBCS/U54/U5:Q".RSTF =  OSPYREGW
   "SBCS/U54/U5:Q".FBK = Vcc

 "SBCS/U54/U6:Q" :=  "SBCS/U54/U6:Q".D1 Xor "SBCS/U54/U6:Q".D2  ; High density f
unction block

   "SBCS/U54/U6:Q".D1 =  ENSPY * UIM_4 * UIM_5 * "SBCS/U54/U5:Q"
   "SBCS/U54/U6:Q".D2 = Gnd
   "SBCS/U54/U6:Q".CLKF =  NCLK
   "SBCS/U54/U6:Q".RSTF =  OSPYREGW
   "SBCS/U54/U6:Q".FBK = Vcc

 "SBCS/U54/U7:Q" :=  "SBCS/U54/U7:Q".D1 Xor "SBCS/U54/U7:Q".D2  ; High density f
unction block

   "SBCS/U54/U7:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54/
U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q"
   "SBCS/U54/U7:Q".D2 = Gnd
   "SBCS/U54/U7:Q".CLKF =  NCLK
   "SBCS/U54/U7:Q".RSTF =  OSPYREGW
   "SBCS/U54/U7:Q".FBK = Vcc

 "SBCS/U54/U8:Q" :=  "SBCS/U54/U8:Q".D1 Xor "SBCS/U54/U8:Q".D2  ; High density f
unction block

   "SBCS/U54/U8:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54/
U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q"
   "SBCS/U54/U8:Q".D2 = Gnd
   "SBCS/U54/U8:Q".CLKF =  NCLK
   "SBCS/U54/U8:Q".RSTF =  OSPYREGW
   "SBCS/U54/U8:Q".FBK = Vcc

 "SBCS/U54/U9:Q" :=  "SBCS/U54/U9:Q".D1 Xor "SBCS/U54/U9:Q".D2  ; High density f
unction block

   "SBCS/U54/U9:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54/
U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
   "SBCS/U54/U9:Q".D2 = Gnd
   "SBCS/U54/U9:Q".CLKF =  NCLK
   "SBCS/U54/U9:Q".RSTF =  OSPYREGW
   "SBCS/U54/U9:Q".FBK = Vcc
```

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 "SBCS/U54/U10:Q" :=  "SBCS/U54/U10:Q".D1 Xor "SBCS/U54/U10:Q".D2  ; High densit
y function block

   "SBCS/U54/U10:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54
/U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q"
   "SBCS/U54/U10:Q".D2 = Gnd
   "SBCS/U54/U10:Q".CLKF =  NCLK
   "SBCS/U54/U10:Q".RSTF =  OSPYREGW
   "SBCS/U54/U10:Q".FBK = Vcc

 "SBCS/U54/U11:Q" :=  "SBCS/U54/U11:Q".D1 Xor "SBCS/U54/U11:Q".D2  ; High densit
y function block

   "SBCS/U54/U11:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54
/U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q" * "SBCS/U54/U10:Q"
   "SBCS/U54/U11:Q".D2 = Gnd
   "SBCS/U54/U11:Q".CLKF =  NCLK
   "SBCS/U54/U11:Q".RSTF =  OSPYREGW
   "SBCS/U54/U11:Q".FBK = Vcc

 "SBCS/U54/U12:Q" :=  "SBCS/U54/U12:Q".D1 Xor "SBCS/U54/U12:Q".D2  ; High densit
y function block

   "SBCS/U54/U12:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54
/U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q" * "SBCS/U54/U10:Q" * "SBCS/U54/U11:Q"
   "SBCS/U54/U12:Q".D2 = Gnd
   "SBCS/U54/U12:Q".CLKF =  NCLK
   "SBCS/U54/U12:Q".RSTF =  OSPYREGW
   "SBCS/U54/U12:Q".FBK = Vcc

 "SBCS/U54/U13:Q" :=  "SBCS/U54/U13:Q".D1 Xor "SBCS/U54/U13:Q".D2  ; High densit
y function block

   "SBCS/U54/U13:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54
/U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q" * "SBCS/U54/U10:Q" * "SBCS/U54/U11:Q"
           * "SBCS/U54/U12:Q"
   "SBCS/U54/U13:Q".D2 = Gnd
   "SBCS/U54/U13:Q".CLKF =  NCLK
   "SBCS/U54/U13:Q".RSTF =  OSPYREGW
   "SBCS/U54/U13:Q".FBK = Vcc

 "SBCS/U54/U14:Q" :=  "SBCS/U54/U14:Q".D1 Xor "SBCS/U54/U14:Q".D2  ; High densit
y function block

   "SBCS/U54/U14:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54
/U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q" * "SBCS/U54/U10:Q" * "SBCS/U54/U11:Q"
```



```
           * "SBCS/U54/U12:Q" * "SBCS/U54/U13:Q"
   "SBCS/U54/U14:Q".D2 = Gnd
   "SBCS/U54/U14:Q".CLKF =  NCLK
   "SBCS/U54/U14:Q".RSTF =  OSPYREGW
   "SBCS/U54/U14:Q".FBK = Vcc

 "SBCS/U54/U15:Q" :=  "SBCS/U54/U15:Q".D1 Xor "SBCS/U54/U15:Q".D2  ; High densit
y function block

   "SBCS/U54/U15:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54
/U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q" * "SBCS/U54/U10:Q" * "SBCS/U54/U11:Q"
           * "SBCS/U54/U12:Q" * "SBCS/U54/U13:Q" * "SBCS/U54/U14:Q"
   "SBCS/U54/U15:Q".D2 = Gnd
   "SBCS/U54/U15:Q".CLKF =  NCLK
   "SBCS/U54/U15:Q".RSTF =  OSPYREGW
   "SBCS/U54/U15:Q".FBK = Vcc

 "SBCS/U54/U16:Q" :=  "SBCS/U54/U16:Q".D1 Xor "SBCS/U54/U16:Q".D2  ; High densit
y function block

   "SBCS/U54/U16:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54
/U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q" * "SBCS/U54/U10:Q" * "SBCS/U54/U11:Q"
           * "SBCS/U54/U12:Q" * "SBCS/U54/U13:Q" * "SBCS/U54/U14:Q"
           * "SBCS/U54/U15:Q"
   "SBCS/U54/U16:Q".D2 = Gnd
   "SBCS/U54/U16:Q".CLKF =  NCLK
   "SBCS/U54/U16:Q".RSTF =  OSPYREGW
   "SBCS/U54/U16:Q".FBK = Vcc

 "SBCS/U54/U17:Q" :=  "SBCS/U54/U17:Q".D1 Xor "SBCS/U54/U17:Q".D2  ; High densit
y function block

   "SBCS/U54/U17:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54
/U2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q" * "SBCS/U54/U10:Q" * "SBCS/U54/U11:Q"
           * "SBCS/U54/U12:Q" * "SBCS/U54/U13:Q" * "SBCS/U54/U14:Q"
           * "SBCS/U54/U15:Q" * "SBCS/U54/U16:Q"
   "SBCS/U54/U17:Q".D2 = Gnd
   "SBCS/U54/U17:Q".CLKF =  NCLK
   "SBCS/U54/U17:Q".RSTF =  OSPYREGW
   "SBCS/U54/U17:Q".FBK = Vcc

 "SBCS/U54/UCEO1:O"  =  ENSPY * "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q" * "SBCS/U54/U
2:Q"
           * "SBCS/U54/U3:Q" * "SBCS/U54/U5:Q" * "SBCS/U54/U6:Q"
           * "SBCS/U54/U4:Q" * "SBCS/U54/U7:Q" * "SBCS/U54/U8:Q"
           * "SBCS/U54/U9:Q" * "SBCS/U54/U10:Q" * "SBCS/U54/U11:Q"
           * "SBCS/U54/U12:Q" * "SBCS/U54/U13:Q" * "SBCS/U54/U14:Q"
           * "SBCS/U54/U15:Q" * "SBCS/U54/U16:Q" * "SBCS/U54/U17:Q"    ; UIM nod
e

 "SBCS/U46/U2:Q" :=  "SBCS/U46/U2:Q".D1 Xor "SBCS/U46/U2:Q".D2  ; High density f
unction block
```

```
   "SBCS/U46/U2:Q".D1 =  "SBCS/U46/U1:Q" * UIM_2
   "SBCS/U46/U2:Q".D2 = Gnd
   "SBCS/U46/U2:Q".CLKF =  NCLK
   "SBCS/U46/U2:Q".RSTF =  RSPYREGW
   "SBCS/U46/U2:Q".FBK = Vcc

 "SBCS/U46/U3:Q" :=  "SBCS/U46/U3:Q".D1 Xor "SBCS/U46/U3:Q".D2  ; High density f
unction block

   "SBCS/U46/U3:Q".D1 =  "SBCS/U46/U1:Q" * UIM_2 * "SBCS/U46/U2:Q"
   "SBCS/U46/U3:Q".D2 = Gnd
   "SBCS/U46/U3:Q".CLKF =  NCLK
   "SBCS/U46/U3:Q".RSTF =  RSPYREGW
   "SBCS/U46/U3:Q".FBK = Vcc

 "SBCS/U46/U4:Q" :=  "SBCS/U46/U4:Q".D1 Xor "SBCS/U46/U4:Q".D2  ; High density f
unction block

   "SBCS/U46/U4:Q".D1 =  "SBCS/U46/U1:Q" * UIM_2 * "SBCS/U46/U2:Q" * "SBCS/U46/U
3:Q"
   "SBCS/U46/U4:Q".D2 = Gnd
   "SBCS/U46/U4:Q".CLKF =  NCLK
   "SBCS/U46/U4:Q".RSTF =  RSPYREGW
   "SBCS/U46/U4:Q".FBK = Vcc

 "SBCS/U46/U5:Q" :=  "SBCS/U46/U5:Q".D1 Xor "SBCS/U46/U5:Q".D2  ; High density f
unction block

   "SBCS/U46/U5:Q".D1 =  ENSPY * UIM_3
   "SBCS/U46/U5:Q".D2 = Gnd
   "SBCS/U46/U5:Q".CLKF =  NCLK
   "SBCS/U46/U5:Q".RSTF =  RSPYREGW
   "SBCS/U46/U5:Q".FBK = Vcc

 "SBCS/U46/U6:Q" :=  "SBCS/U46/U6:Q".D1 Xor "SBCS/U46/U6:Q".D2  ; High density f
unction block

   "SBCS/U46/U6:Q".D1 =  ENSPY * UIM_3 * "SBCS/U46/U5:Q"
   "SBCS/U46/U6:Q".D2 = Gnd
   "SBCS/U46/U6:Q".CLKF =  NCLK
   "SBCS/U46/U6:Q".RSTF =  RSPYREGW
   "SBCS/U46/U6:Q".FBK = Vcc

 "SBCS/U46/U7:Q" :=  "SBCS/U46/U7:Q".D1 Xor "SBCS/U46/U7:Q".D2  ; High density f
unction block

   "SBCS/U46/U7:Q".D1 =  ENSPY * UIM_3 * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q"
   "SBCS/U46/U7:Q".D2 = Gnd
   "SBCS/U46/U7:Q".CLKF =  NCLK
   "SBCS/U46/U7:Q".RSTF =  RSPYREGW
   "SBCS/U46/U7:Q".FBK = Vcc

 "SBCS/U46/U8:Q" :=  "SBCS/U46/U8:Q".D1 Xor "SBCS/U46/U8:Q".D2  ; High density f
unction block

   "SBCS/U46/U8:Q".D1 =  "SBCS/U46/U1:Q" * UIM_2 * "SBCS/U46/U2:Q" * "SBCS/U46/U
3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q"
   "SBCS/U46/U8:Q".D2 = Gnd
   "SBCS/U46/U8:Q".CLKF =  NCLK
   "SBCS/U46/U8:Q".RSTF =  RSPYREGW
```



```
   "SBCS/U46/U8:Q".FBK = Vcc

 "SBCS/U46/U9:Q" :=  "SBCS/U46/U9:Q".D1 Xor "SBCS/U46/U9:Q".D2  ; High density f
unction block

   "SBCS/U46/U9:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SBC
S/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
   "SBCS/U46/U9:Q".D2 = Gnd
   "SBCS/U46/U9:Q".CLKF =  NCLK
   "SBCS/U46/U9:Q".RSTF =  RSPYREGW
   "SBCS/U46/U9:Q".FBK = Vcc

 "SBCS/U46/U10:Q" :=  "SBCS/U46/U10:Q".D1 Xor "SBCS/U46/U10:Q".D2  ; High densit
y function block

   "SBCS/U46/U10:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SB
CS/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q"
   "SBCS/U46/U10:Q".D2 = Gnd
   "SBCS/U46/U10:Q".CLKF =  NCLK
   "SBCS/U46/U10:Q".RSTF =  RSPYREGW
   "SBCS/U46/U10:Q".FBK = Vcc

 "SBCS/U46/U11:Q" :=  "SBCS/U46/U11:Q".D1 Xor "SBCS/U46/U11:Q".D2  ; High densit
y function block

   "SBCS/U46/U11:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SB
CS/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q" * "SBCS/U46/U10:Q"
   "SBCS/U46/U11:Q".D2 = Gnd
   "SBCS/U46/U11:Q".CLKF =  NCLK
   "SBCS/U46/U11:Q".RSTF =  RSPYREGW
   "SBCS/U46/U11:Q".FBK = Vcc

 "SBCS/U46/U12:Q" :=  "SBCS/U46/U12:Q".D1 Xor "SBCS/U46/U12:Q".D2  ; High densit
y function block

   "SBCS/U46/U12:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SB
CS/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q" * "SBCS/U46/U10:Q" * "SBCS/U46/U11:Q"
   "SBCS/U46/U12:Q".D2 = Gnd
   "SBCS/U46/U12:Q".CLKF =  NCLK
   "SBCS/U46/U12:Q".RSTF =  RSPYREGW
   "SBCS/U46/U12:Q".FBK = Vcc

 "SBCS/U46/U13:Q" :=  "SBCS/U46/U13:Q".D1 Xor "SBCS/U46/U13:Q".D2  ; High densit
y function block

   "SBCS/U46/U13:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SB
CS/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q" * "SBCS/U46/U10:Q" * "SBCS/U46/U11:Q"
           * "SBCS/U46/U12:Q"
```

```
   "SBCS/U46/U13:Q".D2 = Gnd
   "SBCS/U46/U13:Q".CLKF =  NCLK
   "SBCS/U46/U13:Q".RSTF =  RSPYREGW
   "SBCS/U46/U13:Q".FBK = Vcc

 "SBCS/U46/U14:Q" :=  "SBCS/U46/U14:Q".D1 Xor "SBCS/U46/U14:Q".D2  ; High densit
y function block

   "SBCS/U46/U14:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SB
CS/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q" * "SBCS/U46/U10:Q" * "SBCS/U46/U11:Q"
           * "SBCS/U46/U12:Q" * "SBCS/U46/U13:Q"
   "SBCS/U46/U14:Q".D2 = Gnd
   "SBCS/U46/U14:Q".CLKF =  NCLK
   "SBCS/U46/U14:Q".RSTF =  RSPYREGW
   "SBCS/U46/U14:Q".FBK = Vcc

 "SBCS/U46/U15:Q" :=  "SBCS/U46/U15:Q".D1 Xor "SBCS/U46/U15:Q".D2  ; High densit
y function block

   "SBCS/U46/U15:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SB
CS/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q" * "SBCS/U46/U10:Q" * "SBCS/U46/U11:Q"
           * "SBCS/U46/U12:Q" * "SBCS/U46/U13:Q" * "SBCS/U46/U14:Q"
   "SBCS/U46/U15:Q".D2 = Gnd
   "SBCS/U46/U15:Q".CLKF =  NCLK
   "SBCS/U46/U15:Q".RSTF =  RSPYREGW
   "SBCS/U46/U15:Q".FBK = Vcc

 "SBCS/U46/U16:Q" :=  "SBCS/U46/U16:Q".D1 Xor "SBCS/U46/U16:Q".D2  ; High densit
y function block

   "SBCS/U46/U16:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SB
CS/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q" * "SBCS/U46/U10:Q" * "SBCS/U46/U11:Q"
           * "SBCS/U46/U12:Q" * "SBCS/U46/U13:Q" * "SBCS/U46/U14:Q"
           * "SBCS/U46/U15:Q"
   "SBCS/U46/U16:Q".D2 = Gnd
   "SBCS/U46/U16:Q".CLKF =  NCLK
   "SBCS/U46/U16:Q".RSTF =  RSPYREGW
   "SBCS/U46/U16:Q".FBK = Vcc

 "SBCS/U46/U17:Q" :=  "SBCS/U46/U17:Q".D1 Xor "SBCS/U46/U17:Q".D2  ; High densit
y function block

   "SBCS/U46/U17:Q".D1 =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SB
CS/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q" * "SBCS/U46/U10:Q" * "SBCS/U46/U11:Q"
           * "SBCS/U46/U12:Q" * "SBCS/U46/U13:Q" * "SBCS/U46/U14:Q"
           * "SBCS/U46/U15:Q" * "SBCS/U46/U16:Q"
   "SBCS/U46/U17:Q".D2 = Gnd
   "SBCS/U46/U17:Q".CLKF =  NCLK
   "SBCS/U46/U17:Q".RSTF =  RSPYREGW
   "SBCS/U46/U17:Q".FBK = Vcc
```



```
 "SBCS/U46/UCEO1:O"  =  LFLE * ENSPY * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SBCS
/U46/U3:Q"
           * "SBCS/U46/U5:Q" * "SBCS/U46/U6:Q" * "SBCS/U46/U7:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q" * "SBCS/U46/U8:Q"
           * "SBCS/U46/U9:Q" * "SBCS/U46/U10:Q" * "SBCS/U46/U11:Q"
           * "SBCS/U46/U12:Q" * "SBCS/U46/U13:Q" * "SBCS/U46/U14:Q"
           * "SBCS/U46/U15:Q" * "SBCS/U46/U16:Q" * "SBCS/U46/U17:Q"    ; UIM nod
e

 "SBCS/U60/U2:Q" :=  "SBCS/U60/U2:Q".D1 Xor "SBCS/U60/U2:Q".D2  ; High density f
unction block

   "SBCS/U60/U2:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q"
   "SBCS/U60/U2:Q".D2 = Gnd
   "SBCS/U60/U2:Q".CLKF =  NCLK
   "SBCS/U60/U2:Q".RSTF =  HSPYREGW
   "SBCS/U60/U2:Q".FBK = Vcc

 "SBCS/U60/U3:Q" :=  "SBCS/U60/U3:Q".D1 Xor "SBCS/U60/U3:Q".D2  ; High density f
unction block

   "SBCS/U60/U3:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "SB
CS/U60/U2:Q"
   "SBCS/U60/U3:Q".D2 = Gnd
   "SBCS/U60/U3:Q".CLKF =  NCLK
   "SBCS/U60/U3:Q".RSTF =  HSPYREGW
   "SBCS/U60/U3:Q".FBK = Vcc

 "SBCS/U60/U4:Q" :=  "SBCS/U60/U4:Q".D1 Xor "SBCS/U60/U4:Q".D2  ; High density f
unction block

   "SBCS/U60/U4:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "SB
CS/U60/U2:Q"
           * "SBCS/U60/U3:Q"
   "SBCS/U60/U4:Q".D2 = Gnd
   "SBCS/U60/U4:Q".CLKF =  NCLK
   "SBCS/U60/U4:Q".RSTF =  HSPYREGW
   "SBCS/U60/U4:Q".FBK = Vcc

 "SBCS/U60/U5:Q" :=  "SBCS/U60/U5:Q".D1 Xor "SBCS/U60/U5:Q".D2  ; High density f
unction block

   "SBCS/U60/U5:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "SB
CS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q"
   "SBCS/U60/U5:Q".D2 = Gnd
   "SBCS/U60/U5:Q".CLKF =  NCLK
   "SBCS/U60/U5:Q".RSTF =  HSPYREGW
   "SBCS/U60/U5:Q".FBK = Vcc

 "SBCS/U60/U6:Q" :=  "SBCS/U60/U6:Q".D1 Xor "SBCS/U60/U6:Q".D2  ; High density f
unction block

   "SBCS/U60/U6:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "SB
CS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
   "SBCS/U60/U6:Q".D2 = Gnd
   "SBCS/U60/U6:Q".CLKF =  NCLK
   "SBCS/U60/U6:Q".RSTF =  HSPYREGW
   "SBCS/U60/U6:Q".FBK = Vcc
```

```
 "SBCS/U60/U7:Q" :=  "SBCS/U60/U7:Q".D1 Xor "SBCS/U60/U7:Q".D2  ; High density f
unction block

   "SBCS/U60/U7:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "SB
CS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q"
   "SBCS/U60/U7:Q".D2 = Gnd
   "SBCS/U60/U7:Q".CLKF =  NCLK
   "SBCS/U60/U7:Q".RSTF =  HSPYREGW
   "SBCS/U60/U7:Q".FBK = Vcc

 "SBCS/U60/U8:Q" :=  "SBCS/U60/U8:Q".D1 Xor "SBCS/U60/U8:Q".D2  ; High density f
unction block

   "SBCS/U60/U8:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "SB
CS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q"
   "SBCS/U60/U8:Q".D2 = Gnd
   "SBCS/U60/U8:Q".CLKF =  NCLK
   "SBCS/U60/U8:Q".RSTF =  HSPYREGW
   "SBCS/U60/U8:Q".FBK = Vcc

 "SBCS/U60/U9:Q" :=  "SBCS/U60/U9:Q".D1 Xor "SBCS/U60/U9:Q".D2  ; High density f
unction block

   "SBCS/U60/U9:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "SB
CS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
   "SBCS/U60/U9:Q".D2 = Gnd
   "SBCS/U60/U9:Q".CLKF =  NCLK
   "SBCS/U60/U9:Q".RSTF =  HSPYREGW
   "SBCS/U60/U9:Q".FBK = Vcc

 "SBCS/U60/U10:Q" :=  "SBCS/U60/U10:Q".D1 Xor "SBCS/U60/U10:Q".D2  ; High densit
y function block

   "SBCS/U60/U10:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "S
BCS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
           * "SBCS/U60/U9:Q"
   "SBCS/U60/U10:Q".D2 = Gnd
   "SBCS/U60/U10:Q".CLKF =  NCLK
   "SBCS/U60/U10:Q".RSTF =  HSPYREGW
   "SBCS/U60/U10:Q".FBK = Vcc

 "SBCS/U60/U11:Q" :=  "SBCS/U60/U11:Q".D1 Xor "SBCS/U60/U11:Q".D2  ; High densit
y function block

   "SBCS/U60/U11:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "S
BCS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
           * "SBCS/U60/U9:Q" * "SBCS/U60/U10:Q"
   "SBCS/U60/U11:Q".D2 = Gnd
   "SBCS/U60/U11:Q".CLKF =  NCLK
   "SBCS/U60/U11:Q".RSTF =  HSPYREGW
   "SBCS/U60/U11:Q".FBK = Vcc
```



```
 "SBCS/U60/U12:Q" :=  "SBCS/U60/U12:Q".D1 Xor "SBCS/U60/U12:Q".D2  ; High densit
y function block

   "SBCS/U60/U12:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "S
BCS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
           * "SBCS/U60/U9:Q" * "SBCS/U60/U10:Q" * "SBCS/U60/U11:Q"
   "SBCS/U60/U12:Q".D2 = Gnd
   "SBCS/U60/U12:Q".CLKF =  NCLK
   "SBCS/U60/U12:Q".RSTF =  HSPYREGW
   "SBCS/U60/U12:Q".FBK = Vcc

 "SBCS/U60/U13:Q" :=  "SBCS/U60/U13:Q".D1 Xor "SBCS/U60/U13:Q".D2  ; High densit
y function block

   "SBCS/U60/U13:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "S
BCS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
           * "SBCS/U60/U9:Q" * "SBCS/U60/U10:Q" * "SBCS/U60/U11:Q"
           * "SBCS/U60/U12:Q"
   "SBCS/U60/U13:Q".D2 = Gnd
   "SBCS/U60/U13:Q".CLKF =  NCLK
   "SBCS/U60/U13:Q".RSTF =  HSPYREGW
   "SBCS/U60/U13:Q".FBK = Vcc

 "SBCS/U60/U14:Q" :=  "SBCS/U60/U14:Q".D1 Xor "SBCS/U60/U14:Q".D2  ; High densit
y function block

   "SBCS/U60/U14:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "S
BCS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
           * "SBCS/U60/U9:Q" * "SBCS/U60/U10:Q" * "SBCS/U60/U11:Q"
           * "SBCS/U60/U12:Q" * "SBCS/U60/U13:Q"
   "SBCS/U60/U14:Q".D2 = Gnd
   "SBCS/U60/U14:Q".CLKF =  NCLK
   "SBCS/U60/U14:Q".RSTF =  HSPYREGW
   "SBCS/U60/U14:Q".FBK = Vcc

 "SBCS/U60/U15:Q" :=  "SBCS/U60/U15:Q".D1 Xor "SBCS/U60/U15:Q".D2  ; High densit
y function block

   "SBCS/U60/U15:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "S
BCS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
           * "SBCS/U60/U9:Q" * "SBCS/U60/U10:Q" * "SBCS/U60/U11:Q"
           * "SBCS/U60/U12:Q" * "SBCS/U60/U13:Q" * "SBCS/U60/U14:Q"
   "SBCS/U60/U15:Q".D2 = Gnd
   "SBCS/U60/U15:Q".CLKF =  NCLK
   "SBCS/U60/U15:Q".RSTF =  HSPYREGW
   "SBCS/U60/U15:Q".FBK = Vcc

 "SBCS/U60/U16:Q" :=  "SBCS/U60/U16:Q".D1 Xor "SBCS/U60/U16:Q".D2  ; High densit
y function block

   "SBCS/U60/U16:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "S
BCS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
```

```
           * "SBCS/U60/U9:Q" * "SBCS/U60/U10:Q" * "SBCS/U60/U11:Q"
           * "SBCS/U60/U12:Q" * "SBCS/U60/U13:Q" * "SBCS/U60/U14:Q"
           * "SBCS/U60/U15:Q"
   "SBCS/U60/U16:Q".D2 = Gnd
   "SBCS/U60/U16:Q".CLKF =  NCLK
   "SBCS/U60/U16:Q".RSTF =  HSPYREGW
   "SBCS/U60/U16:Q".FBK = Vcc

 "SBCS/U60/U17:Q" :=  "SBCS/U60/U17:Q".D1 Xor "SBCS/U60/U17:Q".D2  ; High densit
y function block

   "SBCS/U60/U17:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * "S
BCS/U60/U2:Q"
           * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q" * "SBCS/U60/U5:Q"
           * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q" * "SBCS/U60/U8:Q"
           * "SBCS/U60/U9:Q" * "SBCS/U60/U10:Q" * "SBCS/U60/U11:Q"
           * "SBCS/U60/U12:Q" * "SBCS/U60/U13:Q" * "SBCS/U60/U14:Q"
           * "SBCS/U60/U15:Q" * "SBCS/U60/U16:Q"
   "SBCS/U60/U17:Q".D2 = Gnd
   "SBCS/U60/U17:Q".CLKF =  NCLK
   "SBCS/U60/U17:Q".RSTF =  HSPYREGW
   "SBCS/U60/U17:Q".FBK = Vcc

 "SBCS/U60/UCEO1:O"  =  LFLE * ENSPY */"SPYBUFCE/U68:Q" * "SBCS/U60/U1:Q" * UIM_
0    ; Fast function block

/"SPYBUFCE/U13:Q" := /PUSH    ; Fast function block
   "SPYBUFCE/U13:Q".CLKF =  CLK

/OSPYCS_ :=  PUSH */IFREEZE
       +  OSPYVME * IFREEZE    ; Fast function block
   OSPYCS_.CLKF =  CLK

/HSPYCS_ := /WR_ */IFREEZE
       +  HSPYVME * IFREEZE    ; High density function block
   HSPYCS_.CLKF =  CLK
   HSPYCS_.PRLD =  VCC


/"SPYBUFCE/U68:Q" := /WR_    ; Fast function block
   "SPYBUFCE/U68:Q".CLKF =  CLK

 "SPYBUFCE/U23:Q" :=  FREEZE_    ; High density function block
   "SPYBUFCE/U23:Q".CLKF =  CLK
   "SPYBUFCE/U23:Q".PRLD =  GND


/ENSPY :=  IFREEZE    ; Fast function block
   ENSPY.CLKF =  CLK

/RSPYCS_ :=  WR_ */IFREEZE
       +  RSPYVME * IFREEZE    ; High density function block
   RSPYCS_.CLKF =  CLK
   RSPYCS_.PRLD =  VCC


/RSPYWE_ :=  LFLE * ENSPY * "SPYBUFCE/U68:Q"    ; Fast function block
   RSPYWE_.CLKF =  NCLK
   RSPYWE_.SETF =  NCLKR * DNCLKR */RSPYWE_

/HSPYWE_ :=  LFLE * ENSPY */"SPYBUFCE/U68:Q"    ; Fast function block
   HSPYWE_.CLKF =  NCLK
```



```
   HSPYWE_.SETF =  NCLKR * DNCLKR */HSPYWE_

/OSPYWE_ :=  ENSPY * "SPYBUFCE/U13:Q"    ; Fast function block
   OSPYWE_.CLKF =  NCLK
   OSPYWE_.SETF =  NCLKR * DNCLKR */OSPYWE_

/IFREEZE :=  UIM_1    ; Fast function block
   IFREEZE.CLKF =  CLK

/SPYADD12 := /WR_ */IFREEZE */"SBCS/U60/U13:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U13:Q"
       + /IVADD12 * IFREEZE    ; High density function block
   SPYADD12.CLKF =  CLK

/SPYADD13 := /WR_ */IFREEZE */"SBCS/U60/U14:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U14:Q"
       + /IVADD13 * IFREEZE    ; High density function block
   SPYADD13.CLKF =  CLK

/SPYADD14 := /WR_ */IFREEZE */"SBCS/U60/U15:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U15:Q"
       + /IVADD14 * IFREEZE    ; High density function block
   SPYADD14.CLKF =  CLK

/SPYADD15 := /WR_ */IFREEZE */"SBCS/U60/U16:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U16:Q"
       + /IVADD15 * IFREEZE    ; High density function block
   SPYADD15.CLKF =  CLK

/SPYADD16 := /WR_ */IFREEZE */"SBCS/U60/U17:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U17:Q"
       + /IVADD16 * IFREEZE    ; High density function block
   SPYADD16.CLKF =  CLK

/OSPYADD14 := /IVADD14 * IFREEZE
       + /IFREEZE */"SBCS/U54/U15:Q"    ; High density function block
   OSPYADD14.CLKF =  CLK

/OSPYADD15 := /IVADD15 * IFREEZE
       + /IFREEZE */"SBCS/U54/U16:Q"    ; High density function block
   OSPYADD15.CLKF =  CLK

/OSPYADD16 := /IVADD16 * IFREEZE
       + /IFREEZE */"SBCS/U54/U17:Q"    ; High density function block
   OSPYADD16.CLKF =  CLK

/SPYADD7 := /WR_ */IFREEZE */"SBCS/U60/U8:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U8:Q"
       + /IVADD7 * IFREEZE    ; High density function block
   SPYADD7.CLKF =  CLK

/SPYADD8 := /WR_ */IFREEZE */"SBCS/U60/U9:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U9:Q"
       + /IVADD8 * IFREEZE    ; High density function block
   SPYADD8.CLKF =  CLK

/SPYADD9 := /WR_ */IFREEZE */"SBCS/U60/U10:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U10:Q"
       + /IVADD9 * IFREEZE    ; High density function block
   SPYADD9.CLKF =  CLK

/SPYADD10 := /WR_ */IFREEZE */"SBCS/U60/U11:Q"
```

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       +  WR_ */IFREEZE */"SBCS/U46/U11:Q"
       + /IVADD10 * IFREEZE    ; High density function block
   SPYADD10.CLKF =  CLK

/SPYADD11 := /WR_ */IFREEZE */"SBCS/U60/U12:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U12:Q"
       + /IVADD11 * IFREEZE    ; High density function block
   SPYADD11.CLKF =  CLK

/OSPYADD11 := /IVADD11 * IFREEZE
       + /IFREEZE */"SBCS/U54/U12:Q"    ; High density function block
   OSPYADD11.CLKF =  CLK

/OSPYADD13 := /IVADD13 * IFREEZE
       + /IFREEZE */"SBCS/U54/U14:Q"    ; High density function block
   OSPYADD13.CLKF =  CLK

/SPYADD2 := /WR_ */IFREEZE */"SBCS/U60/U3:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U3:Q"
       + /IVADD2 * IFREEZE    ; High density function block
   SPYADD2.CLKF =  CLK

/SPYADD3 := /WR_ */IFREEZE */"SBCS/U60/U4:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U4:Q"
       + /IVADD3 * IFREEZE    ; High density function block
   SPYADD3.CLKF =  CLK

/SPYADD4 := /WR_ */IFREEZE */"SBCS/U60/U5:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U5:Q"
       + /IVADD4 * IFREEZE    ; High density function block
   SPYADD4.CLKF =  CLK

/SPYADD5 := /WR_ */IFREEZE */"SBCS/U60/U6:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U6:Q"
       + /IVADD5 * IFREEZE    ; High density function block
   SPYADD5.CLKF =  CLK

/SPYADD6 := /WR_ */IFREEZE */"SBCS/U60/U7:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U7:Q"
       + /IVADD6 * IFREEZE    ; High density function block
   SPYADD6.CLKF =  CLK

/OSPYADD6 := /IVADD6 * IFREEZE
       + /IFREEZE */"SBCS/U54/U7:Q"    ; High density function block
   OSPYADD6.CLKF =  CLK

/OSPYADD12 := /IVADD12 * IFREEZE
       + /IFREEZE */"SBCS/U54/U13:Q"    ; High density function block
   OSPYADD12.CLKF =  CLK

/SPYADD0 := /WR_ */IFREEZE */"SBCS/U60/U1:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U1:Q"
       + /IVADD0 * IFREEZE    ; High density function block
   SPYADD0.CLKF =  CLK

/SPYADD1 := /WR_ */IFREEZE */"SBCS/U60/U2:Q"
       +  WR_ */IFREEZE */"SBCS/U46/U2:Q"
       + /IVADD1 * IFREEZE    ; High density function block
   SPYADD1.CLKF =  CLK

/OSPYADD0 := /IVADD0 * IFREEZE
       + /IFREEZE */"SBCS/U54/U1:Q"    ; High density function block
```



```
   OSPYADD0.CLKF =  CLK

/OSPYADD1 := /IVADD1 * IFREEZE
       + /IFREEZE */"SBCS/U54/U2:Q"    ; High density function block
   OSPYADD1.CLKF =  CLK

/OSPYADD5 := /IVADD5 * IFREEZE
       + /IFREEZE */"SBCS/U54/U6:Q"    ; High density function block
   OSPYADD5.CLKF =  CLK

/OSPYADD7 := /IVADD7 * IFREEZE
       + /IFREEZE */"SBCS/U54/U8:Q"    ; High density function block
   OSPYADD7.CLKF =  CLK

/OSPYADD8 := /IVADD8 * IFREEZE
       + /IFREEZE */"SBCS/U54/U9:Q"    ; High density function block
   OSPYADD8.CLKF =  CLK

/OSPYADD9 := /IVADD9 * IFREEZE
       + /IFREEZE */"SBCS/U54/U10:Q"    ; High density function block
   OSPYADD9.CLKF =  CLK

/OSPYADD10 := /IVADD10 * IFREEZE
       + /IFREEZE */"SBCS/U54/U11:Q"    ; High density function block
   OSPYADD10.CLKF =  CLK

/OSPYADD2 := /IVADD2 * IFREEZE
       + /IFREEZE */"SBCS/U54/U3:Q"    ; High density function block
   OSPYADD2.CLKF =  CLK

/OSPYADD3 := /IVADD3 * IFREEZE
       + /IFREEZE */"SBCS/U54/U4:Q"    ; High density function block
   OSPYADD3.CLKF =  CLK

/OSPYADD4 := /IVADD4 * IFREEZE
       + /IFREEZE */"SBCS/U54/U5:Q"    ; High density function block
   OSPYADD4.CLKF =  CLK

/IVDATA12  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U13:Q"
       +  IVADD1 */"SBCS/U54/U13:Q"
       +  IVADD0 */"SBCS/U46/U13:Q"    ; Fast function block

/IVDATA13  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U14:Q"
       +  IVADD1 */"SBCS/U54/U14:Q"
       +  IVADD0 */"SBCS/U46/U14:Q"    ; Fast function block

/IVDATA14  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U15:Q"
       +  IVADD1 */"SBCS/U54/U15:Q"
       +  IVADD0 */"SBCS/U46/U15:Q"    ; Fast function block

/IVDATA15  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U16:Q"
       +  IVADD1 */"SBCS/U54/U16:Q"
       +  IVADD0 */"SBCS/U46/U16:Q"    ; Fast function block

/IVDATA16  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U17:Q"
       +  IVADD1 */"SBCS/U54/U17:Q"
       +  IVADD0 */"SBCS/U46/U17:Q"    ; Fast function block
```

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/IVDATA17  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U108:Q"
       +  IVADD1 */"SBCS/U113:Q"
       +  IVADD0 */"SBCS/U110:Q"    ; Fast function block

/IVDATA18  =  IVADD1 * IVADD0
       +  IFREEZE    ; Fast function block

/IVDATA6  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U7:Q"
       +  IVADD1 */"SBCS/U54/U7:Q"
       +  IVADD0 */"SBCS/U46/U7:Q"    ; Fast function block

/IVDATA7  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U8:Q"
       +  IVADD1 */"SBCS/U54/U8:Q"
       +  IVADD0 */"SBCS/U46/U8:Q"    ; Fast function block

/IVDATA8  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U9:Q"
       +  IVADD1 */"SBCS/U54/U9:Q"
       +  IVADD0 */"SBCS/U46/U9:Q"    ; Fast function block

/IVDATA9  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U10:Q"
       +  IVADD1 */"SBCS/U54/U10:Q"
       +  IVADD0 */"SBCS/U46/U10:Q"    ; Fast function block

/IVDATA10  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U11:Q"
       +  IVADD1 */"SBCS/U54/U11:Q"
       +  IVADD0 */"SBCS/U46/U11:Q"    ; Fast function block

/IVDATA11  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U12:Q"
       +  IVADD1 */"SBCS/U54/U12:Q"
       +  IVADD0 */"SBCS/U46/U12:Q"    ; Fast function block

/IVDATA0  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U1:Q"
       +  IVADD1 */"SBCS/U54/U1:Q"
       +  IVADD0 */"SBCS/U46/U1:Q"    ; Fast function block

/IVDATA1  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U2:Q"
       +  IVADD1 */"SBCS/U54/U2:Q"
       +  IVADD0 */"SBCS/U46/U2:Q"    ; Fast function block

/IVDATA2  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U3:Q"
       +  IVADD1 */"SBCS/U54/U3:Q"
       +  IVADD0 */"SBCS/U46/U3:Q"    ; Fast function block

/IVDATA3  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U4:Q"
       +  IVADD1 */"SBCS/U54/U4:Q"
       +  IVADD0 */"SBCS/U46/U4:Q"    ; Fast function block

/IVDATA4  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U5:Q"
       +  IVADD1 */"SBCS/U54/U5:Q"
```



```
       +  IVADD0 */"SBCS/U46/U5:Q"    ; Fast function block

/IVDATA5  =  IVADD1 * IVADD0
       + /IVADD1 */IVADD0 */"SBCS/U60/U6:Q"
       +  IVADD1 */"SBCS/U54/U6:Q"
       +  IVADD0 */"SBCS/U46/U6:Q"    ; Fast function block

 "SBCS/U54/U1:Q" :=  "SBCS/U54/U1:Q".D1 Xor "SBCS/U54/U1:Q".D2  ; High density f
unction block

   "SBCS/U54/U1:Q".D1 =  ENSPY * "SPYBUFCE/U13:Q"
   "SBCS/U54/U1:Q".D2 = Gnd
   "SBCS/U54/U1:Q".CLKF =  NCLK
   "SBCS/U54/U1:Q".RSTF =  OSPYREGW
   "SBCS/U54/U1:Q".FBK = Vcc

 "SBCS/U46/U1:Q" :=  "SBCS/U46/U1:Q".D1 Xor "SBCS/U46/U1:Q".D2  ; High density f
unction block

   "SBCS/U46/U1:Q".D1 =  UIM_2
   "SBCS/U46/U1:Q".D2 = Gnd
   "SBCS/U46/U1:Q".CLKF =  NCLK
   "SBCS/U46/U1:Q".RSTF =  RSPYREGW
   "SBCS/U46/U1:Q".FBK = Vcc

 "SBCS/U60/U1:Q" :=  "SBCS/U60/U1:Q".D1 Xor "SBCS/U60/U1:Q".D2  ; High density f
unction block

   "SBCS/U60/U1:Q".D1 =  LFLE * ENSPY */"SPYBUFCE/U68:Q"
   "SBCS/U60/U1:Q".D2 = Gnd
   "SBCS/U60/U1:Q".CLKF =  NCLK
   "SBCS/U60/U1:Q".RSTF =  HSPYREGW
   "SBCS/U60/U1:Q".FBK = Vcc

 UIM_0  =  "SBCS/U60/U2:Q" * "SBCS/U60/U3:Q" * "SBCS/U60/U4:Q"
           * "SBCS/U60/U5:Q" * "SBCS/U60/U6:Q" * "SBCS/U60/U7:Q"
           * "SBCS/U60/U8:Q" * "SBCS/U60/U9:Q" * "SBCS/U60/U10:Q"
           * "SBCS/U60/U11:Q" * "SBCS/U60/U12:Q" * "SBCS/U60/U13:Q"
           * "SBCS/U60/U14:Q" * "SBCS/U60/U15:Q" * "SBCS/U60/U16:Q"
           * "SBCS/U60/U17:Q"    ; UIM node

 UIM_1  = /FRZVME * "SPYBUFCE/U23:Q"    ; UIM node

 UIM_2  =  LFLE * ENSPY * "SPYBUFCE/U68:Q"    ; UIM node

 UIM_3  =  LFLE * "SBCS/U46/U1:Q" * "SBCS/U46/U2:Q" * "SBCS/U46/U3:Q"
           * "SBCS/U46/U4:Q" * "SPYBUFCE/U68:Q"    ; UIM node

 UIM_4  =  "SPYBUFCE/U13:Q" * "SBCS/U54/U1:Q"    ; UIM node

 UIM_5  =  "SBCS/U54/U2:Q" * "SBCS/U54/U3:Q" * "SBCS/U54/U4:Q"    ; UIM node
```