```
MODULE BLK5 ;
TYPE GENERAL;
DIMENSIONS   92.6 0  92.6 336.6   0 336.6 0 0;
IOLIST ;

  ALU<10>  I  92.6  128.75  2 METAL2 ;
  ALU<11>  I  92.6  183.85  2 METAL2 ;
  ALU<12>  I  92.6  238.95  2 METAL2 ;
  ALU<13>  I  92.6  294.05  2 METAL2 ;
  ALU<8>  I  92.6  24.55  2 METAL2 ;
  ALU<9>  I  92.6  73.65  2 METAL2 ;
  CSA0  O  0  268.95  2 METAL2 ;
  CSA1  O  0  324.05  2 METAL2 ;
  ECSUM  O  0  213.85  2 METAL2 ;
  LESTAT  I  15.1  0  2 METAL2 ;
  LESTAT  I  15.1  336.6  2 METAL2 ;
  ESYNHA  O  0  48.55  2 METAL2 ;
  PUSHP2  O  0  158.75  2 METAL2 ;
  RESETAN  I  92.6  12.55  2 METAL2 ;
  VECENP  O  0  103.65  2 METAL2 ;
  Vdd0  PWR  28.85  336.6  2 METAL1 ;
  Vdd0  PWR  28.85  0  2 METAL1 ;
  Vdd1  PWR  46.2  336.6  2 METAL1 ;
  Vdd1  PWR  46.2  0  2 METAL1 ;
  GND0  PWR  4.75  336.6  2 METAL1 ;
  GND0  PWR  4.75  0  2 METAL1 ;
  GND1  PWR  88.6  336.6  2 METAL1 ;
  GND1  PWR  88.6  0  2 METAL1 ;
ENDIOLIST ;
ENDMODULE ;
MODULE BLK6 ;
TYPE GENERAL;
DIMENSIONS   454.85 0  454.85 782.9   0 782.9 0 0;
IOLIST ;

  A<0>  I  75.85  0  2 METAL2 ;
  A<1>  I  56.55  0  2 METAL2 ;
  A<2>  I  23.95  0  2 METAL2 ;
  A<3>  I  18.7  0  2 METAL2 ;
  Din<0>  I  166.15  0  2 METAL2 ;
  Din<1>  I  184.15  0  2 METAL2 ;
  Din<10>  I  346.15  0  2 METAL2 ;
  Din<11>  I  364.15  0  2 METAL2 ;
  Din<12>  I  382.15  0  2 METAL2 ;
  Din<13>  I  400.15  0  2 METAL2 ;
  Din<14>  I  418.15  0  2 METAL2 ;
  Din<15>  I  436.15  0  2 METAL2 ;
  Din<2>  I  202.15  0  2 METAL2 ;
  Din<3>  I  220.15  0  2 METAL2 ;
  Din<4>  I  238.15  0  2 METAL2 ;
  Din<5>  I  256.15  0  2 METAL2 ;
  Din<6>  I  274.15  0  2 METAL2 ;
  Din<7>  I  292.15  0  2 METAL2 ;
  Din<8>  I  310.15  0  2 METAL2 ;
  Din<9>  I  328.15  0  2 METAL2 ;
  Dout<0>  O  172.15  0  4 METAL2 ;
  Dout<1>  O  190.15  0  4 METAL2 ;
  Dout<10>  O  352.15  0  4 METAL2 ;
  Dout<11>  O  370.15  0  4 METAL2 ;
  Dout<12>  O  388.15  0  4 METAL2 ;
  Dout<13>  O  406.15  0  4 METAL2 ;
  Dout<14>  O  424.15  0  4 METAL2 ;
  Dout<15>  O  442.15  0  4 METAL2 ;
  Dout<2>  O  208.15  0  4 METAL2 ;
  Dout<3>  O  226.15  0  4 METAL2 ;
  Dout<4>  O  244.15  0  4 METAL2 ;
  Dout<5>  O  262.15  0  4 METAL2 ;
  Dout<6>  O  280.15  0  4 METAL2 ;
  Dout<7>  O  298.15  0  4 METAL2 ;
```

```
    Dout<8>  O  316.15  0  4 METAL2 ;
    Dout<9>  O  334.15  0  4 METAL2 ;
    Wr  I  12.7  0  4 METAL2 ;
    Vdd  PWR  450.5  0  8 METAL1 ;
    Vdd  PWR  450.5  782.9  8 METAL1 ;
    GND  PWR  4.35  0  8 METAL1 ;
    GND  PWR  4.35  782.9  8 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK7 ;
  TYPE GENERAL;
  DIMENSIONS   1472.85 0  1472.85 1008.7   0 1008.7 0 0;
  IOLIST ;

    ALU<0>  I  1472.85  60.55  2 METAL2 ;
    ALU<1>  I  1472.85  126.35  2 METAL2 ;
    ALU<10>  I  1472.85  680.3  2 METAL2 ;
    ALU<11>  I  1472.85  741.6  2 METAL2 ;
    ALU<12>  I  1472.85  804.85  2 METAL2 ;
    ALU<13>  I  1472.85  868.1  2 METAL2 ;
    ALU<14>  I  1472.85  929.4  2 METAL2 ;
    ALU<15>  I  1472.85  990.7  2 METAL2 ;
    ALU<2>  I  1472.85  186.9  2 METAL2 ;
    ALU<3>  I  1472.85  247.45  2 METAL2 ;
    ALU<4>  I  1472.85  308  2 METAL2 ;
    ALU<5>  I  1472.85  373.8  2 METAL2 ;
    ALU<6>  I  1472.85  435.1  2 METAL2 ;
    ALU<7>  I  1472.85  496.4  2 METAL2 ;
    ALU<8>  I  1472.85  557.7  2 METAL2 ;
    ALU<9>  I  1472.85  619  2 METAL2 ;
    BASOV  I  0  966.7  2 METAL2 ;
    BC<0>  O  0  24.55  2 METAL2 ;
    BC<1>  O  0  90.35  2 METAL2 ;
    BC<10>  O  0  644.3  2 METAL2 ;
    BC<11>  O  0  705.6  2 METAL2 ;
    BC<12>  O  0  768.85  2 METAL2 ;
    BC<13>  O  0  832.1  2 METAL2 ;
    BC<14>  O  0  893.4  2 METAL2 ;
    BC<15>  O  0  954.7  2 METAL2 ;
    BC<2>  O  0  150.9  2 METAL2 ;
    BC<3>  O  0  211.45  2 METAL2 ;
    BC<4>  O  0  272  2 METAL2 ;
    BC<5>  O  0  337.8  2 METAL2 ;
    BC<6>  O  0  399.1  2 METAL2 ;
    BC<7>  O  0  460.4  2 METAL2 ;
    BC<8>  O  0  521.7  2 METAL2 ;
    BC<9>  O  0  583  2 METAL2 ;
    BCSOV  I  0  905.4  2 METAL2 ;
    BCTOSI<0>  O  0  66.55  2 METAL2 ;
    BCTOSI<1>  O  0  132.35  2 METAL2 ;
    BCTOSI<10>  O  0  686.3  2 METAL2 ;
    BCTOSI<11>  O  0  747.6  2 METAL2 ;
    BCTOSI<12>  O  0  810.85  2 METAL2 ;
    BCTOSI<13>  O  0  874.1  2 METAL2 ;
    BCTOSI<14>  O  0  935.4  2 METAL2 ;
    BCTOSI<15>  O  0  996.7  2 METAL2 ;
    BCTOSI<2>  O  0  192.9  2 METAL2 ;
    BCTOSI<3>  O  0  253.45  2 METAL2 ;
    BCTOSI<4>  O  0  314  2 METAL2 ;
    BCTOSI<5>  O  0  379.8  2 METAL2 ;
    BCTOSI<6>  O  0  441.1  2 METAL2 ;
    BCTOSI<7>  O  0  502.4  2 METAL2 ;
    BCTOSI<8>  O  0  563.7  2 METAL2 ;
    BCTOSI<9>  O  0  625  2 METAL2 ;
    BCTOSO<0>  I  0  60.55  2 METAL2 ;
    BCTOSO<1>  I  0  126.35  2 METAL2 ;
    BCTOSO<10>  I  0  662.3  2 METAL2 ;
    BCTOSO<11>  I  0  723.6  2 METAL2 ;
    BCTOSO<12>  I  0  786.85  2 METAL2 ;
```

```
    BCTOSO<13>  I  0  850.1  2 METAL2 ;
    BCTOSO<14>  I  0  911.4  2 METAL2 ;
    BCTOSO<15>  I  0  972.7  2 METAL2 ;
    BCTOSO<2>  I  0  186.9  2 METAL2 ;
    BCTOSO<3>  I  0  247.45  2 METAL2 ;
    BCTOSO<4>  I  0  308  2 METAL2 ;
    BCTOSO<5>  I  0  373.8  2 METAL2 ;
    BCTOSO<6>  I  0  417.1  2 METAL2 ;
    BCTOSO<7>  I  0  478.4  2 METAL2 ;
    BCTOSO<8>  I  0  545.7  2 METAL2 ;
    BCTOSO<9>  I  0  601  2 METAL2 ;
    CLK2A  I  27.6  0  2 METAL2 ;
    CLK2A  I  27.6  1008.7  2 METAL2 ;
    CSA0  I  0  780.85  2 METAL2 ;
    CSA1  I  0  844.1  2 METAL2 ;
    CSLCODI  O  906.65  0  2 METAL2 ;
    CSLCODI  O  846.6  1008.7  2 METAL2 ;
    CSLCODO  I  1146.9  0  2 METAL2 ;
    CSLCODO  I  1224.35  1008.7  2 METAL2 ;
    ECSUM  I  0  717.6  2 METAL2 ;
    ECSUMC  I  961.9  0  2 METAL2 ;
    ECSUMC  I  961.9  1008.7  2 METAL2 ;
    Y<0>  I  1472.85  36.55  2 METAL2 ;
    Y<0>  I  0  48.55  2 METAL2 ;
    ESYNHA  I  0  533.7  2 METAL2 ;
    LEALUS  I  1409.55  0  2 METAL2 ;
    LEALUS  I  1409.55  1008.7  2 METAL2 ;
    LEBC  I  317.8  0  2 METAL2 ;
    LEBC  I  317.8  1008.7  2 METAL2 ;
    LEDIL  I  1457.75  0  2 METAL2 ;
    LEDIL  I  1457.75  1008.7  2 METAL2 ;
    LEIOD  I  1308.65  0  2 METAL2 ;
    LEIOD  I  1308.65  1008.7  2 METAL2 ;
    N$3722  I  955.9  0  2 METAL2 ;
    N$3722  I  955.9  1008.7  2 METAL2 ;
    PCP1<0>  I  0  114.35  2 METAL2 ;
    PCP1<1>  I  0  96.35  2 METAL2 ;
    PCP1<2>  I  0  156.9  2 METAL2 ;
    PCP1<3>  I  0  217.45  2 METAL2 ;
    PCP1<4>  I  0  278  2 METAL2 ;
    PCP1<5>  I  0  343.8  2 METAL2 ;
    PCP1<6>  I  0  367.8  2 METAL2 ;
    PCP1<7>  I  0  429.1  2 METAL2 ;
    PCP1<8>  I  0  490.4  2 METAL2 ;
    PUSHP2  I  0  656.3  2 METAL2 ;
    S2ADD0  I  398.7  0  2 METAL2 ;
    S2ADD0  I  398.7  1008.7  2 METAL2 ;
    S2ADD1  I  388  0  2 METAL2 ;
    S2ADD1  I  388  1008.7  2 METAL2 ;
    S2ADD2  I  515.95  0  2 METAL2 ;
    S2ADD2  I  515.95  1008.7  2 METAL2 ;
    S2ADD3  I  505.25  0  2 METAL2 ;
    S2ADD3  I  505.25  1008.7  2 METAL2 ;
    SBCI0  I  254  0  2 METAL2 ;
    SBCI0  I  254  1008.7  2 METAL2 ;
    SBCI1  I  248  0  2 METAL2 ;
    SBCI1  I  248  1008.7  2 METAL2 ;
    SELDI  I  1342.85  0  2 METAL2 ;
    SELDI  I  1342.85  1008.7  2 METAL2 ;
    SELDWD  I  1260.45  0  2 METAL2 ;
    SELDWD  I  1260.45  1008.7  2 METAL2 ;
    SREGB8<0>  I  0  36.55  2 METAL2 ;
    SREGB8<1>  I  0  102.35  2 METAL2 ;
    SREGB8<2>  I  0  162.9  2 METAL2 ;
    SREGB8<3>  I  0  223.45  2 METAL2 ;
    SREGB8<4>  I  0  284  2 METAL2 ;
    SREGF0<0>  O  0  54.55  2 METAL2 ;
    SREGF0<1>  O  0  120.35  2 METAL2 ;
    SREGF0<10>  O  0  674.3  2 METAL2 ;
```

```
    SREGF0<11>  O  0  735.6  2 METAL2 ;
    SREGF0<12>  O  0  798.85  2 METAL2 ;
    SREGF0<13>  O  0  862.1  2 METAL2 ;
    SREGF0<14>  O  0  923.4  2 METAL2 ;
    SREGF0<15>  O  0  984.7  2 METAL2 ;
    SREGF0<2>  O  0  180.9  2 METAL2 ;
    SREGF0<3>  O  0  241.45  2 METAL2 ;
    SREGF0<4>  O  0  302  2 METAL2 ;
    SREGF0<5>  O  0  361.8  2 METAL2 ;
    SREGF0<6>  O  0  423.1  2 METAL2 ;
    SREGF0<7>  O  0  484.4  2 METAL2 ;
    SREGF0<8>  O  0  551.7  2 METAL2 ;
    SREGF0<9>  O  0  613  2 METAL2 ;
    VEC<0>  I  0  42.55  2 METAL2 ;
    VEC<1>  I  0  108.35  2 METAL2 ;
    VEC<2>  I  0  168.9  2 METAL2 ;
    VEC<3>  I  0  229.45  2 METAL2 ;
    VEC<4>  I  0  290  2 METAL2 ;
    VEC<5>  I  0  349.8  2 METAL2 ;
    VEC<6>  I  0  411.1  2 METAL2 ;
    VEC<7>  I  0  472.4  2 METAL2 ;
    VEC<8>  I  0  539.7  2 METAL2 ;
    VECENP  I  0  595  2 METAL2 ;
    DIN<0>  I  1472.85  48.55  2 METAL2 ;
    DIN<1>  I  1472.85  114.35  2 METAL2 ;
    DIN<10>  I  1472.85  668.3  2 METAL2 ;
    DIN<11>  I  1472.85  729.6  2 METAL2 ;
    DIN<12>  I  1472.85  792.85  2 METAL2 ;
    DIN<13>  I  1472.85  856.1  2 METAL2 ;
    DIN<14>  I  1472.85  917.4  2 METAL2 ;
    DIN<15>  I  1472.85  978.7  2 METAL2 ;
    DIN<2>  I  1472.85  174.9  2 METAL2 ;
    DIN<3>  I  1472.85  235.45  2 METAL2 ;
    DIN<4>  I  1472.85  296  2 METAL2 ;
    DIN<5>  I  1472.85  361.8  2 METAL2 ;
    DIN<6>  I  1472.85  423.1  2 METAL2 ;
    DIN<7>  I  1472.85  484.4  2 METAL2 ;
    DIN<8>  I  1472.85  545.7  2 METAL2 ;
    DIN<9>  I  1472.85  607  2 METAL2 ;
    DOUT<0>  O  1472.85  54.55  2 METAL2 ;
    DOUT<1>  O  1472.85  120.35  2 METAL2 ;
    DOUT<10>  O  1472.85  674.3  2 METAL2 ;
    DOUT<11>  O  1472.85  735.6  2 METAL2 ;
    DOUT<12>  O  1472.85  798.85  2 METAL2 ;
    DOUT<13>  O  1472.85  862.1  2 METAL2 ;
    DOUT<14>  O  1472.85  923.4  2 METAL2 ;
    DOUT<15>  O  1472.85  984.7  2 METAL2 ;
    DOUT<2>  O  1472.85  180.9  2 METAL2 ;
    DOUT<3>  O  1472.85  241.45  2 METAL2 ;
    DOUT<4>  O  1472.85  302  2 METAL2 ;
    DOUT<5>  O  1472.85  367.8  2 METAL2 ;
    DOUT<6>  O  1472.85  429.1  2 METAL2 ;
    DOUT<7>  O  1472.85  490.4  2 METAL2 ;
    DOUT<8>  O  1472.85  551.7  2 METAL2 ;
    DOUT<9>  O  1472.85  613  2 METAL2 ;
    Vdd0  PWR  13.85  1008.7  2 METAL1 ;
    Vdd0  PWR  13.85  0  2 METAL1 ;
    Vdd1  PWR  62.05  1008.7  2 METAL1 ;
    Vdd1  PWR  62.05  0  2 METAL1 ;
    Vdd10  PWR  679.65  1008.7  2 METAL1 ;
    Vdd10  PWR  679.65  0  2 METAL1 ;
    Vdd11  PWR  716  1008.7  2 METAL1 ;
    Vdd11  PWR  716  0  2 METAL1 ;
    Vdd12  PWR  873.8  1008.7  2 METAL1 ;
    Vdd12  PWR  873.8  0  2 METAL1 ;
    Vdd13  PWR  916.05  1008.7  2 METAL1 ;
    Vdd13  PWR  916.05  0  2 METAL1 ;
    Vdd14  PWR  984.8  1008.7  2 METAL1 ;
    Vdd14  PWR  984.8  0  2 METAL1 ;
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```
    Vdd15  PWR  1051.75  1008.7  2 METAL1 ;
    Vdd15  PWR  1051.75  0  2 METAL1 ;
    Vdd16  PWR  1120.5  1008.7  2 METAL1 ;
    Vdd16  PWR  1120.5  0  2 METAL1 ;
    Vdd17  PWR  1186.05  1008.7  2 METAL1 ;
    Vdd17  PWR  1186.05  0  2 METAL1 ;
    Vdd18  PWR  1246.7  1008.7  2 METAL1 ;
    Vdd18  PWR  1246.7  0  2 METAL1 ;
    Vdd19  PWR  1294.9  1008.7  2 METAL1 ;
    Vdd19  PWR  1294.9  0  2 METAL1 ;
    Vdd2  PWR  150.95  1008.7  2 METAL1 ;
    Vdd2  PWR  150.95  0  2 METAL1 ;
    Vdd20  PWR  1356.6  1008.7  2 METAL1 ;
    Vdd20  PWR  1356.6  0  2 METAL1 ;
    Vdd21  PWR  1395.8  1008.7  2 METAL1 ;
    Vdd21  PWR  1395.8  0  2 METAL1 ;
    Vdd22  PWR  1444  1008.7  2 METAL1 ;
    Vdd22  PWR  1444  0  2 METAL1 ;
    Vdd3  PWR  195.35  1008.7  2 METAL1 ;
    Vdd3  PWR  195.35  0  2 METAL1 ;
    Vdd4  PWR  304.05  1008.7  2 METAL1 ;
    Vdd4  PWR  304.05  0  2 METAL1 ;
    Vdd5  PWR  353.9  1008.7  2 METAL1 ;
    Vdd5  PWR  353.9  0  2 METAL1 ;
    Vdd6  PWR  431.9  1008.7  2 METAL1 ;
    Vdd6  PWR  431.9  0  2 METAL1 ;
    Vdd7  PWR  471.15  1008.7  2 METAL1 ;
    Vdd7  PWR  471.15  0  2 METAL1 ;
    Vdd8  PWR  549.15  1008.7  2 METAL1 ;
    Vdd8  PWR  549.15  0  2 METAL1 ;
    Vdd9  PWR  601.65  1008.7  2 METAL1 ;
    Vdd9  PWR  601.65  0  2 METAL1 ;
    GND0  PWR  37.95  1008.7  2 METAL1 ;
    GND0  PWR  37.95  0  2 METAL1 ;
    GND1  PWR  86.15  1008.7  2 METAL1 ;
    GND1  PWR  86.15  0  2 METAL1 ;
    GND10  PWR  939.4  1008.7  2 METAL1 ;
    GND10  PWR  939.4  0  2 METAL1 ;
    GND11  PWR  1007  1008.7  2 METAL1 ;
    GND11  PWR  1007  0  2 METAL1 ;
    GND12  PWR  1029.55  1008.7  2 METAL1 ;
    GND12  PWR  1029.55  0  2 METAL1 ;
    GND13  PWR  1097.15  1008.7  2 METAL1 ;
    GND13  PWR  1097.15  0  2 METAL1 ;
    GND14  PWR  1158.45  1008.7  2 METAL1 ;
    GND14  PWR  1158.45  0  2 METAL1 ;
    GND15  PWR  1270.8  1008.7  2 METAL1 ;
    GND15  PWR  1270.8  0  2 METAL1 ;
    GND16  PWR  1319  1008.7  2 METAL1 ;
    GND16  PWR  1319  0  2 METAL1 ;
    GND17  PWR  1332.5  1008.7  2 METAL1 ;
    GND17  PWR  1332.5  0  2 METAL1 ;
    GND18  PWR  1419.9  1008.7  2 METAL1 ;
    GND18  PWR  1419.9  0  2 METAL1 ;
    GND19  PWR  1468.1  1008.7  2 METAL1 ;
    GND19  PWR  1468.1  0  2 METAL1 ;
    GND2  PWR  123.35  1008.7  2 METAL1 ;
    GND2  PWR  123.35  0  2 METAL1 ;
    GND3  PWR  277.7  1008.7  2 METAL1 ;
    GND3  PWR  277.7  0  2 METAL1 ;
    GND4  PWR  328.15  1008.7  2 METAL1 ;
    GND4  PWR  328.15  0  2 METAL1 ;
    GND5  PWR  393.35  1008.7  2 METAL1 ;
    GND5  PWR  393.35  0  2 METAL1 ;
    GND6  PWR  510.6  1008.7  2 METAL1 ;
    GND6  PWR  510.6  0  2 METAL1 ;
    GND7  PWR  640.2  1008.7  2 METAL1 ;
    GND7  PWR  640.2  0  2 METAL1 ;
    GND8  PWR  798.35  1008.7  2 METAL1 ;
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```
    GND8  PWR  798.35  0  2 METAL1 ;
    GND9  PWR  834.4  1008.7  2 METAL1 ;
    GND9  PWR  834.4  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK8 ;
  TYPE GENERAL;
  DIMENSIONS   538.05 0  538.05 505.95   0 505.95 0 0;
  IOLIST ;

    ALU<0>  I  0  17.55  2 METAL2 ;
    ALU<1>  I  0  71.85  2 METAL2 ;
    ALU<2>  I  0  126.15  2 METAL2 ;
    ALU<3>  I  0  180.45  2 METAL2 ;
    ALU<4>  I  0  234.75  2 METAL2 ;
    ALU<5>  I  0  289.05  2 METAL2 ;
    ALU<6>  I  0  343.35  2 METAL2 ;
    ALU<7>  I  0  397.65  2 METAL2 ;
    ALU<8>  I  0  451.95  2 METAL2 ;
    BATOSI<0>  O  538.05  29.55  2 METAL2 ;
    BATOSI<1>  O  538.05  83.85  2 METAL2 ;
    BATOSI<2>  O  538.05  138.15  2 METAL2 ;
    BATOSI<3>  O  538.05  192.45  2 METAL2 ;
    BATOSI<4>  O  538.05  246.75  2 METAL2 ;
    BATOSI<5>  O  538.05  301.05  2 METAL2 ;
    BATOSI<6>  O  538.05  355.35  2 METAL2 ;
    BATOSI<7>  O  538.05  409.65  2 METAL2 ;
    BATOSI<8>  O  538.05  463.95  2 METAL2 ;
    BATOSO<0>  I  538.05  53.55  2 METAL2 ;
    BATOSO<1>  I  538.05  107.85  2 METAL2 ;
    BATOSO<2>  I  538.05  162.15  2 METAL2 ;
    BATOSO<3>  I  538.05  216.45  2 METAL2 ;
    BATOSO<4>  I  538.05  270.75  2 METAL2 ;
    BATOSO<5>  I  538.05  325.05  2 METAL2 ;
    BATOSO<6>  I  538.05  379.35  2 METAL2 ;
    BATOSO<7>  I  538.05  433.65  2 METAL2 ;
    BATOSO<8>  I  538.05  487.95  2 METAL2 ;
    CLK2A  I  522.95  0  2 METAL2 ;
    CLK2A  I  522.95  505.95  2 METAL2 ;
    Y<0>  I  538.05  35.55  2 METAL2 ;
    LEPCP1  I  233.45  0  2 METAL2 ;
    LEPCP1  I  233.45  505.95  2 METAL2 ;
    LETOS  I  289.65  0  2 METAL2 ;
    LETOS  I  289.65  505.95  2 METAL2 ;
    NPC<0>  O  538.05  23.55  2 METAL2 ;
    NPC<1>  O  538.05  77.85  2 METAL2 ;
    NPC<2>  O  538.05  132.15  2 METAL2 ;
    NPC<3>  O  538.05  186.45  2 METAL2 ;
    NPC<4>  O  538.05  240.75  2 METAL2 ;
    NPC<5>  O  538.05  295.05  2 METAL2 ;
    NPC<6>  O  538.05  349.35  2 METAL2 ;
    NPC<7>  O  538.05  403.65  2 METAL2 ;
    NPC<8>  O  538.05  457.95  2 METAL2 ;
    PCP1<0>  O  0  53.55  2 METAL2 ;
    PCP1<1>  O  0  107.85  2 METAL2 ;
    PCP1<2>  O  0  162.15  2 METAL2 ;
    PCP1<3>  O  0  216.45  2 METAL2 ;
    PCP1<4>  O  0  270.75  2 METAL2 ;
    PCP1<5>  O  0  325.05  2 METAL2 ;
    PCP1<6>  O  0  379.35  2 METAL2 ;
    PCP1<7>  O  0  433.65  2 METAL2 ;
    PCP1<8>  O  0  487.95  2 METAL2 ;
    PCP1TS  I  369.05  0  2 METAL2 ;
    PCP1TS  I  369.05  505.95  2 METAL2 ;
    RESETN  I  0  29.55  2 METAL2 ;
    SNPCI0  I  105.65  0  2 METAL2 ;
    SNPCI0  I  105.65  505.95  2 METAL2 ;
    SNPCI1  I  116.35  0  2 METAL2 ;
    SNPCI1  I  116.35  505.95  2 METAL2 ;
```

```
    STOSI  I  322.35  0  2 METAL2 ;
    STOSI  I  322.35  505.95  2 METAL2 ;
    VEC<0>  O  0  59.55  2 METAL2 ;
    VEC<1>  O  0  113.85  2 METAL2 ;
    VEC<2>  O  0  168.15  2 METAL2 ;
    VEC<3>  O  0  222.45  2 METAL2 ;
    VEC<4>  O  0  276.75  2 METAL2 ;
    VEC<5>  O  0  331.05  2 METAL2 ;
    VEC<6>  O  0  385.35  2 METAL2 ;
    VEC<7>  O  0  439.65  2 METAL2 ;
    VEC<8>  O  0  493.95  2 METAL2 ;
    WVEC  I  29.1  0  2 METAL2 ;
    WVEC  I  29.1  505.95  2 METAL2 ;
    Vdd0  PWR  15.35  505.95  2 METAL1 ;
    Vdd0  PWR  15.35  0  2 METAL1 ;
    Vdd1  PWR  72.45  505.95  2 METAL1 ;
    Vdd1  PWR  72.45  0  2 METAL1 ;
    Vdd2  PWR  150.45  505.95  2 METAL1 ;
    Vdd2  PWR  150.45  0  2 METAL1 ;
    Vdd3  PWR  169.45  505.95  2 METAL1 ;
    Vdd3  PWR  169.45  0  2 METAL1 ;
    Vdd4  PWR  247.2  505.95  2 METAL1 ;
    Vdd4  PWR  247.2  0  2 METAL1 ;
    Vdd5  PWR  275.9  505.95  2 METAL1 ;
    Vdd5  PWR  275.9  0  2 METAL1 ;
    Vdd6  PWR  336.1  505.95  2 METAL1 ;
    Vdd6  PWR  336.1  0  2 METAL1 ;
    Vdd7  PWR  382.8  505.95  2 METAL1 ;
    Vdd7  PWR  382.8  0  2 METAL1 ;
    Vdd8  PWR  438.2  505.95  2 METAL1 ;
    Vdd8  PWR  438.2  0  2 METAL1 ;
    Vdd9  PWR  509.2  505.95  2 METAL1 ;
    Vdd9  PWR  509.2  0  2 METAL1 ;
    GND0  PWR  39.45  505.95  2 METAL1 ;
    GND0  PWR  39.45  0  2 METAL1 ;
    GND1  PWR  111  505.95  2 METAL1 ;
    GND1  PWR  111  0  2 METAL1 ;
    GND2  PWR  211.85  505.95  2 METAL1 ;
    GND2  PWR  211.85  0  2 METAL1 ;
    GND3  PWR  223.1  505.95  2 METAL1 ;
    GND3  PWR  223.1  0  2 METAL1 ;
    GND4  PWR  300  505.95  2 METAL1 ;
    GND4  PWR  300  0  2 METAL1 ;
    GND5  PWR  312  505.95  2 METAL1 ;
    GND5  PWR  312  0  2 METAL1 ;
    GND6  PWR  358.7  505.95  2 METAL1 ;
    GND6  PWR  358.7  0  2 METAL1 ;
    GND7  PWR  465.8  505.95  2 METAL1 ;
    GND7  PWR  465.8  0  2 METAL1 ;
    GND8  PWR  533.3  505.95  2 METAL1 ;
    GND8  PWR  533.3  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK9 ;
  TYPE GENERAL;
  DIMENSIONS   493.6 0  493.6 754.65   0 754.65 0 0;
  IOLIST ;

    A<0>  I  95.15  0  2 METAL2 ;
    A<1>  I  75.85  0  2 METAL2 ;
    A<2>  I  56.55  0  2 METAL2 ;
    A<3>  I  23.95  0  2 METAL2 ;
    A<4>  I  18.7  0  2 METAL2 ;
    Din<0>  I  178.45  0  2 METAL2 ;
    Din<1>  I  214.45  0  2 METAL2 ;
    Din<2>  I  250.45  0  2 METAL2 ;
    Din<3>  I  286.45  0  2 METAL2 ;
    Din<4>  I  322.45  0  2 METAL2 ;
    Din<5>  I  358.45  0  2 METAL2 ;
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    Din<6>  I  394.45  0  2 METAL2 ;
    Din<7>  I  430.45  0  2 METAL2 ;
    Din<8>  I  466.45  0  2 METAL2 ;
    Dout<0>  O  184.5  0  4 METAL2 ;
    Dout<1>  O  220.5  0  4 METAL2 ;
    Dout<2>  O  256.5  0  4 METAL2 ;
    Dout<3>  O  292.5  0  4 METAL2 ;
    Dout<4>  O  328.5  0  4 METAL2 ;
    Dout<5>  O  364.5  0  4 METAL2 ;
    Dout<6>  O  400.5  0  4 METAL2 ;
    Dout<7>  O  436.5  0  4 METAL2 ;
    Dout<8>  O  472.5  0  4 METAL2 ;
    Wr  I  12.7  0  4 METAL2 ;
    Vdd  PWR  489.25  0  8 METAL1 ;
    Vdd  PWR  489.25  754.65  8 METAL1 ;
    GND  PWR  4.35  0  8 METAL1 ;
    GND  PWR  4.35  754.65  8 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK10 ;
  TYPE GENERAL;
  DIMENSIONS   400.8 0  400.8 890.8   0 890.8 0 0;
  IOLIST ;

    ALU<0>  I  400.8  13.3  2 METAL2 ;
    ALU<1>  I  400.8  68.6  2 METAL2 ;
    ALU<10>  I  400.8  566.3  2 METAL2 ;
    ALU<11>  I  400.8  621.6  2 METAL2 ;
    ALU<12>  I  400.8  676.9  2 METAL2 ;
    ALU<13>  I  400.8  732.2  2 METAL2 ;
    ALU<14>  I  400.8  787.5  2 METAL2 ;
    ALU<15>  I  400.8  842.8  2 METAL2 ;
    ALU<2>  I  400.8  123.9  2 METAL2 ;
    ALU<3>  I  400.8  179.2  2 METAL2 ;
    ALU<4>  I  400.8  234.5  2 METAL2 ;
    ALU<5>  I  400.8  289.8  2 METAL2 ;
    ALU<6>  I  400.8  345.1  2 METAL2 ;
    ALU<7>  I  400.8  400.4  2 METAL2 ;
    ALU<8>  I  400.8  455.7  2 METAL2 ;
    ALU<9>  I  400.8  511  2 METAL2 ;
    ICS1A0  I  255.95  0  2 METAL2 ;
    ICS1A0  I  255.95  890.8  2 METAL2 ;
    ICS1A1  I  245.25  0  2 METAL2 ;
    ICS1A1  I  245.25  890.8  2 METAL2 ;
    REGS1M0<0>  O  400.8  37.3  2 METAL2 ;
    REGS1M0<1>  O  400.8  92.6  2 METAL2 ;
    REGS1M0<10>  O  400.8  590.3  2 METAL2 ;
    REGS1M0<11>  O  400.8  645.6  2 METAL2 ;
    REGS1M0<12>  O  400.8  700.9  2 METAL2 ;
    REGS1M0<13>  O  400.8  756.2  2 METAL2 ;
    REGS1M0<14>  O  400.8  811.5  2 METAL2 ;
    REGS1M0<15>  O  400.8  866.8  2 METAL2 ;
    REGS1M0<2>  O  400.8  147.9  2 METAL2 ;
    REGS1M0<3>  O  400.8  203.2  2 METAL2 ;
    REGS1M0<4>  O  400.8  258.5  2 METAL2 ;
    REGS1M0<5>  O  400.8  313.8  2 METAL2 ;
    REGS1M0<6>  O  400.8  369.1  2 METAL2 ;
    REGS1M0<7>  O  400.8  424.4  2 METAL2 ;
    REGS1M0<8>  O  400.8  479.7  2 METAL2 ;
    REGS1M0<9>  O  400.8  535  2 METAL2 ;
    REGS2M0<0>  O  0  43.3  2 METAL2 ;
    REGS2M0<1>  O  0  98.6  2 METAL2 ;
    REGS2M0<10>  O  0  596.3  2 METAL2 ;
    REGS2M0<11>  O  0  651.6  2 METAL2 ;
    REGS2M0<12>  O  0  706.9  2 METAL2 ;
    REGS2M0<13>  O  0  762.2  2 METAL2 ;
    REGS2M0<14>  O  0  817.5  2 METAL2 ;
    REGS2M0<15>  O  0  872.8  2 METAL2 ;
    REGS2M0<2>  O  0  153.9  2 METAL2 ;
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    REGS2M0<3>  O  0  209.2  2 METAL2 ;
    REGS2M0<4>  O  0  264.5  2 METAL2 ;
    REGS2M0<5>  O  0  319.8  2 METAL2 ;
    REGS2M0<6>  O  0  375.1  2 METAL2 ;
    REGS2M0<7>  O  0  430.4  2 METAL2 ;
    REGS2M0<8>  O  0  485.7  2 METAL2 ;
    REGS2M0<9>  O  0  541  2 METAL2 ;
    S2ADD0  I  140.35  0  2 METAL2 ;
    S2ADD0  I  140.35  890.8  2 METAL2 ;
    S2ADD1  I  151.05  0  2 METAL2 ;
    S2ADD1  I  151.05  890.8  2 METAL2 ;
    WREG0  I  15.1  0  2 METAL2 ;
    WREG0  I  15.1  890.8  2 METAL2 ;
    WREG1  I  65.3  0  2 METAL2 ;
    WREG1  I  65.3  890.8  2 METAL2 ;
    WREG2  I  345  0  2 METAL2 ;
    WREG2  I  345  890.8  2 METAL2 ;
    WREG3  I  385.7  0  2 METAL2 ;
    WREG3  I  385.7  890.8  2 METAL2 ;
    Vdd0  PWR  28.85  890.8  2 METAL1 ;
    Vdd0  PWR  28.85  0  2 METAL1 ;
    Vdd1  PWR  51.55  890.8  2 METAL1 ;
    Vdd1  PWR  51.55  0  2 METAL1 ;
    Vdd2  PWR  107.15  890.8  2 METAL1 ;
    Vdd2  PWR  107.15  0  2 METAL1 ;
    Vdd3  PWR  185.15  890.8  2 METAL1 ;
    Vdd3  PWR  185.15  0  2 METAL1 ;
    Vdd4  PWR  211.15  890.8  2 METAL1 ;
    Vdd4  PWR  211.15  0  2 METAL1 ;
    Vdd5  PWR  289.15  890.8  2 METAL1 ;
    Vdd5  PWR  289.15  0  2 METAL1 ;
    Vdd6  PWR  331.25  890.8  2 METAL1 ;
    Vdd6  PWR  331.25  0  2 METAL1 ;
    Vdd7  PWR  371.95  890.8  2 METAL1 ;
    Vdd7  PWR  371.95  0  2 METAL1 ;
    GND0  PWR  4.75  890.8  2 METAL1 ;
    GND0  PWR  4.75  0  2 METAL1 ;
    GND1  PWR  75.65  890.8  2 METAL1 ;
    GND1  PWR  75.65  0  2 METAL1 ;
    GND2  PWR  145.7  890.8  2 METAL1 ;
    GND2  PWR  145.7  0  2 METAL1 ;
    GND3  PWR  250.6  890.8  2 METAL1 ;
    GND3  PWR  250.6  0  2 METAL1 ;
    GND4  PWR  355.35  890.8  2 METAL1 ;
    GND4  PWR  355.35  0  2 METAL1 ;
    GND5  PWR  396.05  890.8  2 METAL1 ;
    GND5  PWR  396.05  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK11 ;
  TYPE GENERAL;
  DIMENSIONS   769.2 0  769.2 322.9   0 322.9 0 0;
  IOLIST ;

    ALU<0>  I  769.2  40.7  2 METAL2 ;
    ALU<1>  I  769.2  98.4  2 METAL2 ;
    ALU<2>  I  769.2  156.1  2 METAL2 ;
    ALU<3>  I  769.2  213.8  2 METAL2 ;
    ALU<4>  I  769.2  298.45  2 METAL2 ;
    BASP<0>  O  769.2  70.7  2 METAL2 ;
    BASP<1>  O  769.2  128.4  2 METAL2 ;
    BASP<2>  O  769.2  186.1  2 METAL2 ;
    BASP<3>  O  769.2  243.8  2 METAL2 ;
    BASP<4>  O  769.2  304.45  2 METAL2 ;
    BCSP<0>  O  0  76.7  2 METAL2 ;
    BCSP<1>  O  0  134.4  2 METAL2 ;
    BCSP<2>  O  0  192.1  2 METAL2 ;
    BCSP<3>  O  0  249.8  2 METAL2 ;
    BASPCO  O  570.4  0  2 METAL2 ;
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    BASPCO  O  570.4  322.9  2 METAL2 ;
    BCSPCO  O  357.75  0  2 METAL2 ;
    BCSPCO  O  357.75  322.9  2 METAL2 ;
    UPBARN  I  732.8  0  2 METAL2 ;
    UPBARN  I  732.8  322.9  2 METAL2 ;
    Y<0>  I  769.2  34  2 METAL2 ;
    UPBARN  I  157.45  0  2 METAL2 ;
    UPBARN  I  157.45  322.9  2 METAL2 ;
    Y<0>  I  0  40.7  2 METAL2 ;
    N$2869  I  162.7  0  2 METAL2 ;
    N$2869  I  162.7  322.9  2 METAL2 ;
    N$3429  I  575.65  0  2 METAL2 ;
    N$3429  I  575.65  322.9  2 METAL2 ;
    N$497  I  285.15  0  2 METAL2 ;
    N$497  I  363  322.9  2 METAL2 ;
    PUSHBA  I  738.05  0  2 METAL2 ;
    PUSHBA  I  738.05  322.9  2 METAL2 ;
    CLK  I  60.75  0  2 METAL2 ;
    CLK  I  465.45  322.9  2 METAL2 ;
    RESETN  I  54.75  0  2 METAL2 ;
    RESETN  I  471.45  322.9  2 METAL2 ;
    S2ADD0  I  380.1  0  2 METAL2 ;
    S2ADD0  I  380.1  322.9  2 METAL2 ;
    SREGB8<0>  O  0  64.7  2 METAL2 ;
    SREGB8<1>  O  0  122.4  2 METAL2 ;
    SREGB8<2>  O  0  180.1  2 METAL2 ;
    SREGB8<3>  O  0  237.8  2 METAL2 ;
    SREGB8<4>  O  0  268.45  2 METAL2 ;
    WNCBASP  I  545.3  0  2 METAL2 ;
    WNCBASP  I  545.3  322.9  2 METAL2 ;
    WNCBCSP  I  127.1  0  2 METAL2 ;
    WNCBCSP  I  110  322.9  2 METAL2 ;
    Vdd0  PWR  31.85  322.9  2 METAL1 ;
    Vdd0  PWR  31.85  0  2 METAL1 ;
    Vdd1  PWR  100.6  322.9  2 METAL1 ;
    Vdd1  PWR  100.6  0  2 METAL1 ;
    Vdd10  PWR  703.3  322.9  2 METAL1 ;
    Vdd10  PWR  703.3  0  2 METAL1 ;
    Vdd2  PWR  140.85  322.9  2 METAL1 ;
    Vdd2  PWR  140.85  0  2 METAL1 ;
    Vdd3  PWR  224.1  322.9  2 METAL1 ;
    Vdd3  PWR  224.1  0  2 METAL1 ;
    Vdd4  PWR  327.5  322.9  2 METAL1 ;
    Vdd4  PWR  327.5  0  2 METAL1 ;
    Vdd5  PWR  393.85  322.9  2 METAL1 ;
    Vdd5  PWR  393.85  0  2 METAL1 ;
    Vdd6  PWR  425.6  322.9  2 METAL1 ;
    Vdd6  PWR  425.6  0  2 METAL1 ;
    Vdd7  PWR  494.35  322.9  2 METAL1 ;
    Vdd7  PWR  494.35  0  2 METAL1 ;
    Vdd8  PWR  559.05  322.9  2 METAL1 ;
    Vdd8  PWR  559.05  0  2 METAL1 ;
    Vdd9  PWR  599.9  322.9  2 METAL1 ;
    Vdd9  PWR  599.9  0  2 METAL1 ;
    GND0  PWR  9.65  322.9  2 METAL1 ;
    GND0  PWR  9.65  0  2 METAL1 ;
    GND1  PWR  77.25  322.9  2 METAL1 ;
    GND1  PWR  77.25  0  2 METAL1 ;
    GND10  PWR  758.15  322.9  2 METAL1 ;
    GND10  PWR  758.15  0  2 METAL1 ;
    GND2  PWR  116.75  322.9  2 METAL1 ;
    GND2  PWR  116.75  0  2 METAL1 ;
    GND3  PWR  169.25  322.9  2 METAL1 ;
    GND3  PWR  169.25  0  2 METAL1 ;
    GND4  PWR  267.8  322.9  2 METAL1 ;
    GND4  PWR  267.8  0  2 METAL1 ;
    GND5  PWR  369.75  322.9  2 METAL1 ;
    GND5  PWR  369.75  0  2 METAL1 ;
    GND6  PWR  448.95  322.9  2 METAL1 ;
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    GND6  PWR  448.95  0  2 METAL1 ;
    GND7  PWR  516.55  322.9  2 METAL1 ;
    GND7  PWR  516.55  0  2 METAL1 ;
    GND8  PWR  534.95  322.9  2 METAL1 ;
    GND8  PWR  534.95  0  2 METAL1 ;
    GND9  PWR  659.6  322.9  2 METAL1 ;
    GND9  PWR  659.6  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK12 ;
  TYPE GENERAL;
  DIMENSIONS   38.2 0  38.2 222   0 222 0 0;
  IOLIST ;

    BRVEC  O  38.2  102  2 METAL2 ;
    CLIN<0>  I  0  6  2 METAL2 ;
    CLK2B  I  23.1  0  2 METAL2 ;
    CLK2B  I  23.1  222  2 METAL2 ;
    CLOUT<2>  O  38.2  156  2 METAL2 ;
    CLOUT<3>  O  38.2  210  2 METAL2 ;
    GRANT  O  38.2  48  2 METAL2 ;
    BRVECTL  I  0  60  2 METAL2 ;
    HALTTL  I  0  114  2 METAL2 ;
    RESETTLN  I  0  168  2 METAL2 ;
    Vdd0  PWR  9.35  222  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    GND0  PWR  33.45  222  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK13 ;
  TYPE GENERAL;
  DIMENSIONS   225 0  225 341.25   0 341.25 0 0;
  IOLIST ;

    DADD<0>  O  225  59.25  2 METAL2 ;
    DADD<1>  O  225  113.25  2 METAL2 ;
    DADD<2>  O  225  167.25  2 METAL2 ;
    DADD<3>  O  225  221.25  2 METAL2 ;
    DADD<4>  O  225  275.25  2 METAL2 ;
    DADD<5>  O  225  329.25  2 METAL2 ;
    DSRDSTD2<5>  I  0  287.25  2 METAL2 ;
    S2ADDBI<0>  O  0  53.25  2 METAL2 ;
    S2ADDBI<1>  O  0  107.25  2 METAL2 ;
    S2ADDBI<2>  O  0  161.25  2 METAL2 ;
    S2ADDBI<3>  O  0  215.25  2 METAL2 ;
    S2ADDBI<4>  O  0  269.25  2 METAL2 ;
    CLK2A  I  209.9  0  2 METAL2 ;
    CLK2A  I  209.9  341.25  2 METAL2 ;
    CLK2B  I  23.1  0  2 METAL2 ;
    CLK2B  I  23.1  341.25  2 METAL2 ;
    DADDA4  I  225  239.25  2 METAL2 ;
    HA<0>  I  0  23.25  2 METAL2 ;
    HA<1>  I  0  77.25  2 METAL2 ;
    HA<2>  I  0  131.25  2 METAL2 ;
    HA<3>  I  0  185.25  2 METAL2 ;
    HA<4>  I  0  239.25  2 METAL2 ;
    HA<5>  I  0  293.25  2 METAL2 ;
    HPMXIN<11>  I  71.3  0  2 METAL2 ;
    HPMXIN<11>  I  116.5  341.25  2 METAL2 ;
    IRM<10>  I  225  131.25  2 METAL2 ;
    IRM<11>  I  225  185.25  2 METAL2 ;
    IRM<14>  I  225  293.25  2 METAL2 ;
    IRM<3>  I  0  17.25  2 METAL2 ;
    IRM<4>  I  0  71.25  2 METAL2 ;
    IRM<5>  I  0  125.25  2 METAL2 ;
    IRM<6>  I  0  179.25  2 METAL2 ;
    IRM<7>  I  0  233.25  2 METAL2 ;
    IRM<8>  I  225  23.25  2 METAL2 ;
```

```
    IRM<9>  I  225  77.25  2 METAL2 ;
    UIC  O  0  59.25  2 METAL2 ;
    Vdd0  PWR  9.35  341.25  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    Vdd1  PWR  57.55  341.25  2 METAL1 ;
    Vdd1  PWR  57.55  0  2 METAL1 ;
    Vdd2  PWR  102.75  341.25  2 METAL1 ;
    Vdd2  PWR  102.75  0  2 METAL1 ;
    Vdd3  PWR  153.95  341.25  2 METAL1 ;
    Vdd3  PWR  153.95  0  2 METAL1 ;
    Vdd4  PWR  196.15  341.25  2 METAL1 ;
    Vdd4  PWR  196.15  0  2 METAL1 ;
    GND0  PWR  33.45  341.25  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
    GND1  PWR  81.65  341.25  2 METAL1 ;
    GND1  PWR  81.65  0  2 METAL1 ;
    GND2  PWR  126.85  341.25  2 METAL1 ;
    GND2  PWR  126.85  0  2 METAL1 ;
    GND3  PWR  178.05  341.25  2 METAL1 ;
    GND3  PWR  178.05  0  2 METAL1 ;
    GND4  PWR  220.25  341.25  2 METAL1 ;
    GND4  PWR  220.25  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK14 ;
  TYPE GENERAL;
  DIMENSIONS   400.8 0  400.8 890.8   0 890.8 0 0;
  IOLIST ;

    ALU<0>  I  400.8  13.3  2 METAL2 ;
    ALU<1>  I  400.8  68.6  2 METAL2 ;
    ALU<10>  I  400.8  566.3  2 METAL2 ;
    ALU<11>  I  400.8  621.6  2 METAL2 ;
    ALU<12>  I  400.8  676.9  2 METAL2 ;
    ALU<13>  I  400.8  732.2  2 METAL2 ;
    ALU<14>  I  400.8  787.5  2 METAL2 ;
    ALU<15>  I  400.8  842.8  2 METAL2 ;
    ALU<2>  I  400.8  123.9  2 METAL2 ;
    ALU<3>  I  400.8  179.2  2 METAL2 ;
    ALU<4>  I  400.8  234.5  2 METAL2 ;
    ALU<5>  I  400.8  289.8  2 METAL2 ;
    ALU<6>  I  400.8  345.1  2 METAL2 ;
    ALU<7>  I  400.8  400.4  2 METAL2 ;
    ALU<8>  I  400.8  455.7  2 METAL2 ;
    ALU<9>  I  400.8  511  2 METAL2 ;
    ICS1A0  I  260.45  0  2 METAL2 ;
    ICS1A0  I  260.45  890.8  2 METAL2 ;
    ICS1A1  I  249.75  0  2 METAL2 ;
    ICS1A1  I  249.75  890.8  2 METAL2 ;
    REGS1M1<0>  O  400.8  43.3  2 METAL2 ;
    REGS1M1<1>  O  400.8  98.6  2 METAL2 ;
    REGS1M1<10>  O  400.8  596.3  2 METAL2 ;
    REGS1M1<11>  O  400.8  651.6  2 METAL2 ;
    REGS1M1<12>  O  400.8  706.9  2 METAL2 ;
    REGS1M1<13>  O  400.8  762.2  2 METAL2 ;
    REGS1M1<14>  O  400.8  817.5  2 METAL2 ;
    REGS1M1<15>  O  400.8  872.8  2 METAL2 ;
    REGS1M1<2>  O  400.8  153.9  2 METAL2 ;
    REGS1M1<3>  O  400.8  209.2  2 METAL2 ;
    REGS1M1<4>  O  400.8  264.5  2 METAL2 ;
    REGS1M1<5>  O  400.8  319.8  2 METAL2 ;
    REGS1M1<6>  O  400.8  375.1  2 METAL2 ;
    REGS1M1<7>  O  400.8  430.4  2 METAL2 ;
    REGS1M1<8>  O  400.8  485.7  2 METAL2 ;
    REGS1M1<9>  O  400.8  541  2 METAL2 ;
    REGS2M1<0>  O  0  43.3  2 METAL2 ;
    REGS2M1<1>  O  0  98.6  2 METAL2 ;
    REGS2M1<10>  O  0  596.3  2 METAL2 ;
    REGS2M1<11>  O  0  651.6  2 METAL2 ;
```

```
    REGS2M1<12>  O  0  706.9  2 METAL2 ;
    REGS2M1<13>  O  0  762.2  2 METAL2 ;
    REGS2M1<14>  O  0  817.5  2 METAL2 ;
    REGS2M1<15>  O  0  872.8  2 METAL2 ;
    REGS2M1<2>  O  0  153.9  2 METAL2 ;
    REGS2M1<3>  O  0  209.2  2 METAL2 ;
    REGS2M1<4>  O  0  264.5  2 METAL2 ;
    REGS2M1<5>  O  0  319.8  2 METAL2 ;
    REGS2M1<6>  O  0  375.1  2 METAL2 ;
    REGS2M1<7>  O  0  430.4  2 METAL2 ;
    REGS2M1<8>  O  0  485.7  2 METAL2 ;
    REGS2M1<9>  O  0  541  2 METAL2 ;
    S2ADD0  I  144.85  0  2 METAL2 ;
    S2ADD0  I  144.85  890.8  2 METAL2 ;
    S2ADD1  I  155.55  0  2 METAL2 ;
    S2ADD1  I  155.55  890.8  2 METAL2 ;
    WREG4  I  385.7  0  2 METAL2 ;
    WREG4  I  385.7  890.8  2 METAL2 ;
    WREG5  I  15.1  0  2 METAL2 ;
    WREG5  I  15.1  890.8  2 METAL2 ;
    WREG6  I  65.3  0  2 METAL2 ;
    WREG6  I  65.3  890.8  2 METAL2 ;
    WREG7  I  343.5  0  2 METAL2 ;
    WREG7  I  343.5  890.8  2 METAL2 ;
    Vdd0  PWR  28.85  890.8  2 METAL1 ;
    Vdd0  PWR  28.85  0  2 METAL1 ;
    Vdd1  PWR  51.55  890.8  2 METAL1 ;
    Vdd1  PWR  51.55  0  2 METAL1 ;
    Vdd2  PWR  111.65  890.8  2 METAL1 ;
    Vdd2  PWR  111.65  0  2 METAL1 ;
    Vdd3  PWR  189.65  890.8  2 METAL1 ;
    Vdd3  PWR  189.65  0  2 METAL1 ;
    Vdd4  PWR  215.65  890.8  2 METAL1 ;
    Vdd4  PWR  215.65  0  2 METAL1 ;
    Vdd5  PWR  293.65  890.8  2 METAL1 ;
    Vdd5  PWR  293.65  0  2 METAL1 ;
    Vdd6  PWR  329.75  890.8  2 METAL1 ;
    Vdd6  PWR  329.75  0  2 METAL1 ;
    Vdd7  PWR  371.95  890.8  2 METAL1 ;
    Vdd7  PWR  371.95  0  2 METAL1 ;
    GND0  PWR  4.75  890.8  2 METAL1 ;
    GND0  PWR  4.75  0  2 METAL1 ;
    GND1  PWR  75.65  890.8  2 METAL1 ;
    GND1  PWR  75.65  0  2 METAL1 ;
    GND2  PWR  150.2  890.8  2 METAL1 ;
    GND2  PWR  150.2  0  2 METAL1 ;
    GND3  PWR  255.1  890.8  2 METAL1 ;
    GND3  PWR  255.1  0  2 METAL1 ;
    GND4  PWR  353.85  890.8  2 METAL1 ;
    GND4  PWR  353.85  0  2 METAL1 ;
    GND5  PWR  396.05  890.8  2 METAL1 ;
    GND5  PWR  396.05  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK15 ;
  TYPE GENERAL;
  DIMENSIONS   400.8 0  400.8 890.8   0 890.8 0 0;
  IOLIST ;

    ALU<0>  I  400.8  13.3  2 METAL2 ;
    ALU<1>  I  400.8  68.6  2 METAL2 ;
    ALU<10>  I  400.8  566.3  2 METAL2 ;
    ALU<11>  I  400.8  621.6  2 METAL2 ;
    ALU<12>  I  400.8  676.9  2 METAL2 ;
    ALU<13>  I  400.8  732.2  2 METAL2 ;
    ALU<14>  I  400.8  787.5  2 METAL2 ;
    ALU<15>  I  400.8  842.8  2 METAL2 ;
    ALU<2>  I  400.8  123.9  2 METAL2 ;
    ALU<3>  I  400.8  179.2  2 METAL2 ;
```

```
    ALU<4>  I  400.8  234.5  2 METAL2 ;
    ALU<5>  I  400.8  289.8  2 METAL2 ;
    ALU<6>  I  400.8  345.1  2 METAL2 ;
    ALU<7>  I  400.8  400.4  2 METAL2 ;
    ALU<8>  I  400.8  455.7  2 METAL2 ;
    ALU<9>  I  400.8  511  2 METAL2 ;
    ICS1A0  I  260.45  0  2 METAL2 ;
    ICS1A0  I  260.45  890.8  2 METAL2 ;
    ICS1A1  I  249.75  0  2 METAL2 ;
    ICS1A1  I  249.75  890.8  2 METAL2 ;
    REGS1M2<0>  O  400.8  43.3  2 METAL2 ;
    REGS1M2<1>  O  400.8  98.6  2 METAL2 ;
    REGS1M2<10>  O  400.8  596.3  2 METAL2 ;
    REGS1M2<11>  O  400.8  651.6  2 METAL2 ;
    REGS1M2<12>  O  400.8  706.9  2 METAL2 ;
    REGS1M2<13>  O  400.8  762.2  2 METAL2 ;
    REGS1M2<14>  O  400.8  817.5  2 METAL2 ;
    REGS1M2<15>  O  400.8  872.8  2 METAL2 ;
    REGS1M2<2>  O  400.8  153.9  2 METAL2 ;
    REGS1M2<3>  O  400.8  209.2  2 METAL2 ;
    REGS1M2<4>  O  400.8  264.5  2 METAL2 ;
    REGS1M2<5>  O  400.8  319.8  2 METAL2 ;
    REGS1M2<6>  O  400.8  375.1  2 METAL2 ;
    REGS1M2<7>  O  400.8  430.4  2 METAL2 ;
    REGS1M2<8>  O  400.8  485.7  2 METAL2 ;
    REGS1M2<9>  O  400.8  541  2 METAL2 ;
    REGS2M2<0>  O  0  37.3  2 METAL2 ;
    REGS2M2<1>  O  0  92.6  2 METAL2 ;
    REGS2M2<10>  O  0  590.3  2 METAL2 ;
    REGS2M2<11>  O  0  645.6  2 METAL2 ;
    REGS2M2<12>  O  0  700.9  2 METAL2 ;
    REGS2M2<13>  O  0  756.2  2 METAL2 ;
    REGS2M2<14>  O  0  811.5  2 METAL2 ;
    REGS2M2<15>  O  0  866.8  2 METAL2 ;
    REGS2M2<2>  O  0  147.9  2 METAL2 ;
    REGS2M2<3>  O  0  203.2  2 METAL2 ;
    REGS2M2<4>  O  0  258.5  2 METAL2 ;
    REGS2M2<5>  O  0  313.8  2 METAL2 ;
    REGS2M2<6>  O  0  369.1  2 METAL2 ;
    REGS2M2<7>  O  0  424.4  2 METAL2 ;
    REGS2M2<8>  O  0  479.7  2 METAL2 ;
    REGS2M2<9>  O  0  535  2 METAL2 ;
    S2ADD0  I  144.85  0  2 METAL2 ;
    S2ADD0  I  144.85  890.8  2 METAL2 ;
    S2ADD1  I  155.55  0  2 METAL2 ;
    S2ADD1  I  155.55  890.8  2 METAL2 ;
    WREG10  I  15.1  0  2 METAL2 ;
    WREG10  I  15.1  890.8  2 METAL2 ;
    WREG11  I  63.8  0  2 METAL2 ;
    WREG11  I  63.8  890.8  2 METAL2 ;
    WREG8  I  343.5  0  2 METAL2 ;
    WREG8  I  343.5  890.8  2 METAL2 ;
    WREG9  I  385.7  0  2 METAL2 ;
    WREG9  I  385.7  890.8  2 METAL2 ;
    Vdd0  PWR  28.85  890.8  2 METAL1 ;
    Vdd0  PWR  28.85  0  2 METAL1 ;
    Vdd1  PWR  50.05  890.8  2 METAL1 ;
    Vdd1  PWR  50.05  0  2 METAL1 ;
    Vdd2  PWR  111.65  890.8  2 METAL1 ;
    Vdd2  PWR  111.65  0  2 METAL1 ;
    Vdd3  PWR  189.65  890.8  2 METAL1 ;
    Vdd3  PWR  189.65  0  2 METAL1 ;
    Vdd4  PWR  215.65  890.8  2 METAL1 ;
    Vdd4  PWR  215.65  0  2 METAL1 ;
    Vdd5  PWR  293.65  890.8  2 METAL1 ;
    Vdd5  PWR  293.65  0  2 METAL1 ;
    Vdd6  PWR  329.75  890.8  2 METAL1 ;
    Vdd6  PWR  329.75  0  2 METAL1 ;
    Vdd7  PWR  371.95  890.8  2 METAL1 ;
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```
    Vdd7  PWR  371.95  0  2 METAL1 ;
    GND0  PWR  4.75  890.8  2 METAL1 ;
    GND0  PWR  4.75  0  2 METAL1 ;
    GND1  PWR  74.15  890.8  2 METAL1 ;
    GND1  PWR  74.15  0  2 METAL1 ;
    GND2  PWR  150.2  890.8  2 METAL1 ;
    GND2  PWR  150.2  0  2 METAL1 ;
    GND3  PWR  255.1  890.8  2 METAL1 ;
    GND3  PWR  255.1  0  2 METAL1 ;
    GND4  PWR  353.85  890.8  2 METAL1 ;
    GND4  PWR  353.85  0  2 METAL1 ;
    GND5  PWR  396.05  890.8  2 METAL1 ;
    GND5  PWR  396.05  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK16 ;
  TYPE GENERAL;
  DIMENSIONS   38.2 0  38.2 438   0 438 0 0;
  IOLIST ;

    ALUF0  O  38.2  48  2 METAL2 ;
    ALUF1  O  38.2  102  2 METAL2 ;
    ALUF2  O  38.2  156  2 METAL2 ;
    ALUF3  O  38.2  210  2 METAL2 ;
    ALUF4  O  38.2  264  2 METAL2 ;
    ALUF5  O  38.2  318  2 METAL2 ;
    ALUF6  O  38.2  372  2 METAL2 ;
    ALUF7  O  38.2  426  2 METAL2 ;
    ALUFB<0>  I  0  6  2 METAL2 ;
    ALUFB<1>  I  0  60  2 METAL2 ;
    ALUFB<2>  I  0  114  2 METAL2 ;
    ALUFB<3>  I  0  168  2 METAL2 ;
    ALUFB<4>  I  0  222  2 METAL2 ;
    ALUFB<5>  I  0  276  2 METAL2 ;
    ALUFB<6>  I  0  330  2 METAL2 ;
    ALUFB<7>  I  0  384  2 METAL2 ;
    CLKN2  I  23.1  0  2 METAL2 ;
    CLKN2  I  23.1  438  2 METAL2 ;
    Vdd0  PWR  9.35  438  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    GND0  PWR  33.45  438  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK17 ;
  TYPE GENERAL;
  DIMENSIONS   358.6 0  358.6 873.9   0 873.9 0 0;
  IOLIST ;

    CLK2B  I  23.1  0  2 METAL2 ;
    CLK2B  I  23.1  873.9  2 METAL2 ;
    ICS1A0  I  0  25.3  2 METAL2 ;
    ICS1A1  I  0  79.3  2 METAL2 ;
    ICS1ABI<0>  O  0  49.3  2 METAL2 ;
    ICS1ABI<1>  O  0  103.3  2 METAL2 ;
    REGS1M0<0>  I  358.6  13.3  2 METAL2 ;
    REGS1M0<1>  I  358.6  67.3  2 METAL2 ;
    REGS1M0<10>  I  358.6  555.9  2 METAL2 ;
    REGS1M0<11>  I  358.6  609.9  2 METAL2 ;
    REGS1M0<12>  I  358.6  663.9  2 METAL2 ;
    REGS1M0<13>  I  358.6  717.9  2 METAL2 ;
    REGS1M0<14>  I  358.6  771.9  2 METAL2 ;
    REGS1M0<15>  I  358.6  825.9  2 METAL2 ;
    REGS1M0<2>  I  358.6  122.6  2 METAL2 ;
    REGS1M0<3>  I  358.6  177.9  2 METAL2 ;
    REGS1M0<4>  I  358.6  231.9  2 METAL2 ;
    REGS1M0<5>  I  358.6  285.9  2 METAL2 ;
    REGS1M0<6>  I  358.6  339.9  2 METAL2 ;
    REGS1M0<7>  I  358.6  393.9  2 METAL2 ;
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    REGS1M0<8>  I  358.6  447.9  2 METAL2 ;
    REGS1M0<9>  I  358.6  501.9  2 METAL2 ;
    REGS1M1<0>  I  358.6  37.3  2 METAL2 ;
    REGS1M1<1>  I  358.6  91.3  2 METAL2 ;
    REGS1M1<10>  I  358.6  579.9  2 METAL2 ;
    REGS1M1<11>  I  358.6  633.9  2 METAL2 ;
    REGS1M1<12>  I  358.6  687.9  2 METAL2 ;
    REGS1M1<13>  I  358.6  741.9  2 METAL2 ;
    REGS1M1<14>  I  358.6  795.9  2 METAL2 ;
    REGS1M1<15>  I  358.6  849.9  2 METAL2 ;
    REGS1M1<2>  I  358.6  146.6  2 METAL2 ;
    REGS1M1<3>  I  358.6  201.9  2 METAL2 ;
    REGS1M1<4>  I  358.6  255.9  2 METAL2 ;
    REGS1M1<5>  I  358.6  309.9  2 METAL2 ;
    REGS1M1<6>  I  358.6  363.9  2 METAL2 ;
    REGS1M1<7>  I  358.6  417.9  2 METAL2 ;
    REGS1M1<8>  I  358.6  471.9  2 METAL2 ;
    REGS1M1<9>  I  358.6  525.9  2 METAL2 ;
    REGS1M2<0>  I  0  19.3  2 METAL2 ;
    REGS1M2<1>  I  0  73.3  2 METAL2 ;
    REGS1M2<10>  I  0  561.9  2 METAL2 ;
    REGS1M2<11>  I  0  615.9  2 METAL2 ;
    REGS1M2<12>  I  0  669.9  2 METAL2 ;
    REGS1M2<13>  I  0  723.9  2 METAL2 ;
    REGS1M2<14>  I  0  777.9  2 METAL2 ;
    REGS1M2<15>  I  0  831.9  2 METAL2 ;
    REGS1M2<2>  I  0  128.6  2 METAL2 ;
    REGS1M2<3>  I  0  183.9  2 METAL2 ;
    REGS1M2<4>  I  0  237.9  2 METAL2 ;
    REGS1M2<5>  I  0  291.9  2 METAL2 ;
    REGS1M2<6>  I  0  345.9  2 METAL2 ;
    REGS1M2<7>  I  0  399.9  2 METAL2 ;
    REGS1M2<8>  I  0  453.9  2 METAL2 ;
    REGS1M2<9>  I  0  507.9  2 METAL2 ;
    REGS1M3<0>  I  0  13.3  2 METAL2 ;
    REGS1M3<1>  I  0  67.3  2 METAL2 ;
    REGS1M3<10>  I  0  555.9  2 METAL2 ;
    REGS1M3<11>  I  0  609.9  2 METAL2 ;
    REGS1M3<12>  I  0  663.9  2 METAL2 ;
    REGS1M3<13>  I  0  717.9  2 METAL2 ;
    REGS1M3<14>  I  0  771.9  2 METAL2 ;
    REGS1M3<15>  I  0  825.9  2 METAL2 ;
    REGS1M3<2>  I  0  122.6  2 METAL2 ;
    REGS1M3<3>  I  0  177.9  2 METAL2 ;
    REGS1M3<4>  I  0  231.9  2 METAL2 ;
    REGS1M3<5>  I  0  285.9  2 METAL2 ;
    REGS1M3<6>  I  0  339.9  2 METAL2 ;
    REGS1M3<7>  I  0  393.9  2 METAL2 ;
    REGS1M3<8>  I  0  447.9  2 METAL2 ;
    REGS1M3<9>  I  0  501.9  2 METAL2 ;
    REGS2M0<0>  I  358.6  6  2 METAL2 ;
    REGS2M0<1>  I  358.6  60  2 METAL2 ;
    REGS2M0<10>  I  358.6  548.6  2 METAL2 ;
    REGS2M0<11>  I  358.6  602.6  2 METAL2 ;
    REGS2M0<12>  I  358.6  656.6  2 METAL2 ;
    REGS2M0<13>  I  358.6  710.6  2 METAL2 ;
    REGS2M0<14>  I  358.6  764.6  2 METAL2 ;
    REGS2M0<15>  I  358.6  818.6  2 METAL2 ;
    REGS2M0<2>  I  358.6  115.3  2 METAL2 ;
    REGS2M0<3>  I  358.6  170.6  2 METAL2 ;
    REGS2M0<4>  I  358.6  224.6  2 METAL2 ;
    REGS2M0<5>  I  358.6  278.6  2 METAL2 ;
    REGS2M0<6>  I  358.6  332.6  2 METAL2 ;
    REGS2M0<7>  I  358.6  386.6  2 METAL2 ;
    REGS2M0<8>  I  358.6  440.6  2 METAL2 ;
    REGS2M0<9>  I  358.6  494.6  2 METAL2 ;
    REGS2M1<0>  I  358.6  49.3  2 METAL2 ;
    REGS2M1<1>  I  358.6  103.3  2 METAL2 ;
    REGS2M1<10>  I  358.6  591.9  2 METAL2 ;
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    REGS2M1<11>  I  358.6  645.9  2 METAL2 ;
    REGS2M1<12>  I  358.6  699.9  2 METAL2 ;
    REGS2M1<13>  I  358.6  753.9  2 METAL2 ;
    REGS2M1<14>  I  358.6  807.9  2 METAL2 ;
    REGS2M1<15>  I  358.6  861.9  2 METAL2 ;
    REGS2M1<2>  I  358.6  158.6  2 METAL2 ;
    REGS2M1<3>  I  358.6  213.9  2 METAL2 ;
    REGS2M1<4>  I  358.6  267.9  2 METAL2 ;
    REGS2M1<5>  I  358.6  321.9  2 METAL2 ;
    REGS2M1<6>  I  358.6  375.9  2 METAL2 ;
    REGS2M1<7>  I  358.6  429.9  2 METAL2 ;
    REGS2M1<8>  I  358.6  483.9  2 METAL2 ;
    REGS2M1<9>  I  358.6  537.9  2 METAL2 ;
    REGS2M2<0>  I  358.6  19.3  2 METAL2 ;
    REGS2M2<1>  I  358.6  73.3  2 METAL2 ;
    REGS2M2<10>  I  358.6  561.9  2 METAL2 ;
    REGS2M2<11>  I  358.6  615.9  2 METAL2 ;
    REGS2M2<12>  I  358.6  669.9  2 METAL2 ;
    REGS2M2<13>  I  358.6  723.9  2 METAL2 ;
    REGS2M2<14>  I  358.6  777.9  2 METAL2 ;
    REGS2M2<15>  I  358.6  831.9  2 METAL2 ;
    REGS2M2<2>  I  358.6  128.6  2 METAL2 ;
    REGS2M2<3>  I  358.6  183.9  2 METAL2 ;
    REGS2M2<4>  I  358.6  237.9  2 METAL2 ;
    REGS2M2<5>  I  358.6  291.9  2 METAL2 ;
    REGS2M2<6>  I  358.6  345.9  2 METAL2 ;
    REGS2M2<7>  I  358.6  399.9  2 METAL2 ;
    REGS2M2<8>  I  358.6  453.9  2 METAL2 ;
    REGS2M2<9>  I  358.6  507.9  2 METAL2 ;
    REGS2M3<0>  I  358.6  31.3  2 METAL2 ;
    REGS2M3<1>  I  358.6  85.3  2 METAL2 ;
    REGS2M3<10>  I  358.6  573.9  2 METAL2 ;
    REGS2M3<11>  I  358.6  627.9  2 METAL2 ;
    REGS2M3<12>  I  358.6  681.9  2 METAL2 ;
    REGS2M3<13>  I  358.6  735.9  2 METAL2 ;
    REGS2M3<14>  I  358.6  789.9  2 METAL2 ;
    REGS2M3<15>  I  358.6  843.9  2 METAL2 ;
    REGS2M3<2>  I  358.6  140.6  2 METAL2 ;
    REGS2M3<3>  I  358.6  195.9  2 METAL2 ;
    REGS2M3<4>  I  358.6  249.9  2 METAL2 ;
    REGS2M3<5>  I  358.6  303.9  2 METAL2 ;
    REGS2M3<6>  I  358.6  357.9  2 METAL2 ;
    REGS2M3<7>  I  358.6  411.9  2 METAL2 ;
    REGS2M3<8>  I  358.6  465.9  2 METAL2 ;
    REGS2M3<9>  I  358.6  519.9  2 METAL2 ;
    IRL<0>  I  0  7.3  2 METAL2 ;
    IRL<1>  I  0  61.3  2 METAL2 ;
    IRL<10>  I  0  549.9  2 METAL2 ;
    IRL<11>  I  0  603.9  2 METAL2 ;
    IRL<12>  I  0  657.9  2 METAL2 ;
    IRL<13>  I  0  711.9  2 METAL2 ;
    IRL<14>  I  0  765.9  2 METAL2 ;
    IRL<15>  I  0  819.9  2 METAL2 ;
    IRL<2>  I  0  116.6  2 METAL2 ;
    IRL<3>  I  0  171.9  2 METAL2 ;
    IRL<4>  I  0  225.9  2 METAL2 ;
    IRL<5>  I  0  279.9  2 METAL2 ;
    IRL<6>  I  0  333.9  2 METAL2 ;
    IRL<7>  I  0  387.9  2 METAL2 ;
    IRL<8>  I  0  441.9  2 METAL2 ;
    IRL<9>  I  0  495.9  2 METAL2 ;
    S1<0>  O  0  43.3  2 METAL2 ;
    S1<1>  O  0  97.3  2 METAL2 ;
    S1<10>  O  0  585.9  2 METAL2 ;
    S1<11>  O  0  639.9  2 METAL2 ;
    S1<12>  O  0  693.9  2 METAL2 ;
    S1<13>  O  0  747.9  2 METAL2 ;
    S1<14>  O  0  801.9  2 METAL2 ;
    S1<15>  O  0  855.9  2 METAL2 ;
```

```
    S1<2>  O  0  152.6  2 METAL2 ;
    S1<3>  O  0  207.9  2 METAL2 ;
    S1<4>  O  0  261.9  2 METAL2 ;
    S1<5>  O  0  315.9  2 METAL2 ;
    S1<6>  O  0  369.9  2 METAL2 ;
    S1<7>  O  0  423.9  2 METAL2 ;
    S1<8>  O  0  477.9  2 METAL2 ;
    S1<9>  O  0  531.9  2 METAL2 ;
    S2<0>  O  358.6  43.3  2 METAL2 ;
    S2<1>  O  358.6  97.3  2 METAL2 ;
    S2<10>  O  358.6  585.9  2 METAL2 ;
    S2<11>  O  358.6  639.9  2 METAL2 ;
    S2<12>  O  358.6  693.9  2 METAL2 ;
    S2<13>  O  358.6  747.9  2 METAL2 ;
    S2<14>  O  358.6  801.9  2 METAL2 ;
    S2<15>  O  358.6  855.9  2 METAL2 ;
    S2<2>  O  358.6  152.6  2 METAL2 ;
    S2<3>  O  358.6  207.9  2 METAL2 ;
    S2<4>  O  358.6  261.9  2 METAL2 ;
    S2<5>  O  358.6  315.9  2 METAL2 ;
    S2<6>  O  358.6  369.9  2 METAL2 ;
    S2<7>  O  358.6  423.9  2 METAL2 ;
    S2<8>  O  358.6  477.9  2 METAL2 ;
    S2<9>  O  358.6  531.9  2 METAL2 ;
    S2ADD2  I  302.8  0  2 METAL2 ;
    S2ADD2  I  302.8  873.9  2 METAL2 ;
    S2ADD3  I  313.5  0  2 METAL2 ;
    S2ADD3  I  313.5  873.9  2 METAL2 ;
    S2ADD4  I  224.25  0  2 METAL2 ;
    S2ADD4  I  224.25  873.9  2 METAL2 ;
    SREGF0<0>  I  358.6  25.3  2 METAL2 ;
    SREGF0<1>  I  358.6  79.3  2 METAL2 ;
    SREGF0<10>  I  358.6  567.9  2 METAL2 ;
    SREGF0<11>  I  358.6  621.9  2 METAL2 ;
    SREGF0<12>  I  358.6  675.9  2 METAL2 ;
    SREGF0<13>  I  358.6  729.9  2 METAL2 ;
    SREGF0<14>  I  358.6  783.9  2 METAL2 ;
    SREGF0<15>  I  358.6  837.9  2 METAL2 ;
    SREGF0<2>  I  358.6  134.6  2 METAL2 ;
    SREGF0<3>  I  358.6  189.9  2 METAL2 ;
    SREGF0<4>  I  358.6  243.9  2 METAL2 ;
    SREGF0<5>  I  358.6  297.9  2 METAL2 ;
    SREGF0<6>  I  358.6  351.9  2 METAL2 ;
    SREGF0<7>  I  358.6  405.9  2 METAL2 ;
    SREGF0<8>  I  358.6  459.9  2 METAL2 ;
    SREGF0<9>  I  358.6  513.9  2 METAL2 ;
    UIC  I  66.3  0  2 METAL2 ;
    UIC  I  66.3  873.9  2 METAL2 ;
    Vdd0  PWR  9.35  873.9  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    Vdd1  PWR  80.05  873.9  2 METAL1 ;
    Vdd1  PWR  80.05  0  2 METAL1 ;
    Vdd2  PWR  111.65  873.9  2 METAL1 ;
    Vdd2  PWR  111.65  0  2 METAL1 ;
    Vdd3  PWR  189.65  873.9  2 METAL1 ;
    Vdd3  PWR  189.65  0  2 METAL1 ;
    Vdd4  PWR  238  873.9  2 METAL1 ;
    Vdd4  PWR  238  0  2 METAL1 ;
    Vdd5  PWR  269.6  873.9  2 METAL1 ;
    Vdd5  PWR  269.6  0  2 METAL1 ;
    Vdd6  PWR  347.6  873.9  2 METAL1 ;
    Vdd6  PWR  347.6  0  2 METAL1 ;
    GND0  PWR  33.45  873.9  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
    GND1  PWR  55.95  873.9  2 METAL1 ;
    GND1  PWR  55.95  0  2 METAL1 ;
    GND2  PWR  150.2  873.9  2 METAL1 ;
    GND2  PWR  150.2  0  2 METAL1 ;
    GND3  PWR  213.9  873.9  2 METAL1 ;
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    GND3  PWR  213.9  0  2 METAL1 ;
    GND4  PWR  308.15  873.9  2 METAL1 ;
    GND4  PWR  308.15  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK18 ;
  TYPE GENERAL;
  DIMENSIONS   396.3 0  396.3 890.8   0 890.8 0 0;
  IOLIST ;

    ALU<0>  I  396.3  13.3  2 METAL2 ;
    ALU<1>  I  396.3  68.6  2 METAL2 ;
    ALU<10>  I  396.3  566.3  2 METAL2 ;
    ALU<11>  I  396.3  621.6  2 METAL2 ;
    ALU<12>  I  396.3  676.9  2 METAL2 ;
    ALU<13>  I  396.3  732.2  2 METAL2 ;
    ALU<14>  I  396.3  787.5  2 METAL2 ;
    ALU<15>  I  396.3  842.8  2 METAL2 ;
    ALU<2>  I  396.3  123.9  2 METAL2 ;
    ALU<3>  I  396.3  179.2  2 METAL2 ;
    ALU<4>  I  396.3  234.5  2 METAL2 ;
    ALU<5>  I  396.3  289.8  2 METAL2 ;
    ALU<6>  I  396.3  345.1  2 METAL2 ;
    ALU<7>  I  396.3  400.4  2 METAL2 ;
    ALU<8>  I  396.3  455.7  2 METAL2 ;
    ALU<9>  I  396.3  511  2 METAL2 ;
    ICS1A0  I  255.95  0  2 METAL2 ;
    ICS1A0  I  255.95  890.8  2 METAL2 ;
    ICS1A1  I  245.25  0  2 METAL2 ;
    ICS1A1  I  245.25  890.8  2 METAL2 ;
    REGS1M3<0>  O  396.3  37.3  2 METAL2 ;
    REGS1M3<1>  O  396.3  92.6  2 METAL2 ;
    REGS1M3<10>  O  396.3  590.3  2 METAL2 ;
    REGS1M3<11>  O  396.3  645.6  2 METAL2 ;
    REGS1M3<12>  O  396.3  700.9  2 METAL2 ;
    REGS1M3<13>  O  396.3  756.2  2 METAL2 ;
    REGS1M3<14>  O  396.3  811.5  2 METAL2 ;
    REGS1M3<15>  O  396.3  866.8  2 METAL2 ;
    REGS1M3<2>  O  396.3  147.9  2 METAL2 ;
    REGS1M3<3>  O  396.3  203.2  2 METAL2 ;
    REGS1M3<4>  O  396.3  258.5  2 METAL2 ;
    REGS1M3<5>  O  396.3  313.8  2 METAL2 ;
    REGS1M3<6>  O  396.3  369.1  2 METAL2 ;
    REGS1M3<7>  O  396.3  424.4  2 METAL2 ;
    REGS1M3<8>  O  396.3  479.7  2 METAL2 ;
    REGS1M3<9>  O  396.3  535  2 METAL2 ;
    REGS2M3<0>  O  0  43.3  2 METAL2 ;
    REGS2M3<1>  O  0  98.6  2 METAL2 ;
    REGS2M3<10>  O  0  596.3  2 METAL2 ;
    REGS2M3<11>  O  0  651.6  2 METAL2 ;
    REGS2M3<12>  O  0  706.9  2 METAL2 ;
    REGS2M3<13>  O  0  762.2  2 METAL2 ;
    REGS2M3<14>  O  0  817.5  2 METAL2 ;
    REGS2M3<15>  O  0  872.8  2 METAL2 ;
    REGS2M3<2>  O  0  153.9  2 METAL2 ;
    REGS2M3<3>  O  0  209.2  2 METAL2 ;
    REGS2M3<4>  O  0  264.5  2 METAL2 ;
    REGS2M3<5>  O  0  319.8  2 METAL2 ;
    REGS2M3<6>  O  0  375.1  2 METAL2 ;
    REGS2M3<7>  O  0  430.4  2 METAL2 ;
    REGS2M3<8>  O  0  485.7  2 METAL2 ;
    REGS2M3<9>  O  0  541  2 METAL2 ;
    S2ADD0  I  140.35  0  2 METAL2 ;
    S2ADD0  I  140.35  890.8  2 METAL2 ;
    S2ADD1  I  151.05  0  2 METAL2 ;
    S2ADD1  I  151.05  890.8  2 METAL2 ;
    WREG12  I  65.3  0  2 METAL2 ;
    WREG12  I  65.3  890.8  2 METAL2 ;
    WREG13  I  340.5  0  2 METAL2 ;
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    WREG13  I  340.5  890.8  2 METAL2 ;
    WREG14  I  381.2  0  2 METAL2 ;
    WREG14  I  381.2  890.8  2 METAL2 ;
    WREG15  I  15.1  0  2 METAL2 ;
    WREG15  I  15.1  890.8  2 METAL2 ;
    Vdd0  PWR  28.85  890.8  2 METAL1 ;
    Vdd0  PWR  28.85  0  2 METAL1 ;
    Vdd1  PWR  51.55  890.8  2 METAL1 ;
    Vdd1  PWR  51.55  0  2 METAL1 ;
    Vdd2  PWR  107.15  890.8  2 METAL1 ;
    Vdd2  PWR  107.15  0  2 METAL1 ;
    Vdd3  PWR  185.15  890.8  2 METAL1 ;
    Vdd3  PWR  185.15  0  2 METAL1 ;
    Vdd4  PWR  211.15  890.8  2 METAL1 ;
    Vdd4  PWR  211.15  0  2 METAL1 ;
    Vdd5  PWR  289.15  890.8  2 METAL1 ;
    Vdd5  PWR  289.15  0  2 METAL1 ;
    Vdd6  PWR  326.75  890.8  2 METAL1 ;
    Vdd6  PWR  326.75  0  2 METAL1 ;
    Vdd7  PWR  367.45  890.8  2 METAL1 ;
    Vdd7  PWR  367.45  0  2 METAL1 ;
    GND0  PWR  4.75  890.8  2 METAL1 ;
    GND0  PWR  4.75  0  2 METAL1 ;
    GND1  PWR  75.65  890.8  2 METAL1 ;
    GND1  PWR  75.65  0  2 METAL1 ;
    GND2  PWR  145.7  890.8  2 METAL1 ;
    GND2  PWR  145.7  0  2 METAL1 ;
    GND3  PWR  250.6  890.8  2 METAL1 ;
    GND3  PWR  250.6  0  2 METAL1 ;
    GND4  PWR  350.85  890.8  2 METAL1 ;
    GND4  PWR  350.85  0  2 METAL1 ;
    GND5  PWR  391.55  890.8  2 METAL1 ;
    GND5  PWR  391.55  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK19 ;
  TYPE GENERAL;
  DIMENSIONS   624.1 0  624.1 1142.85   0 1142.85 0 0;
  IOLIST ;

    ALUBI<0>  O  624.1  66.8  2 METAL2 ;
    ALUBI<1>  O  624.1  137.15  2 METAL2 ;
    ALUBI<10>  O  624.1  770.3  2 METAL2 ;
    ALUBI<11>  O  624.1  840.65  2 METAL2 ;
    ALUBI<12>  O  624.1  911  2 METAL2 ;
    ALUBI<13>  O  624.1  981.35  2 METAL2 ;
    ALUBI<14>  O  624.1  1051.7  2 METAL2 ;
    ALUBI<15>  O  624.1  1122.05  2 METAL2 ;
    ALUBI<2>  O  624.1  207.5  2 METAL2 ;
    ALUBI<3>  O  624.1  277.85  2 METAL2 ;
    ALUBI<4>  O  624.1  348.2  2 METAL2 ;
    ALUBI<5>  O  624.1  418.55  2 METAL2 ;
    ALUBI<6>  O  624.1  488.9  2 METAL2 ;
    ALUBI<7>  O  624.1  559.25  2 METAL2 ;
    ALUBI<8>  O  624.1  629.6  2 METAL2 ;
    ALUBI<9>  O  624.1  699.95  2 METAL2 ;
    ALUF0  I  74.2  0  2 METAL2 ;
    ALUF0  I  74.2  1142.85  2 METAL2 ;
    ALUF1  I  80.2  0  2 METAL2 ;
    ALUF1  I  80.2  1142.85  2 METAL2 ;
    ALUF2  I  157.7  0  2 METAL2 ;
    ALUF2  I  157.7  1142.85  2 METAL2 ;
    ALUF3  I  163.7  0  2 METAL2 ;
    ALUF3  I  163.7  1142.85  2 METAL2 ;
    ALUF4  I  203.5  0  2 METAL2 ;
    ALUF4  I  203.5  1142.85  2 METAL2 ;
    ALUF5  I  45.2  0  2 METAL2 ;
    ALUF5  I  45.2  1142.85  2 METAL2 ;
    ALUF6  I  530.45  0  2 METAL2 ;
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    ALUF6  I  530.45  1142.85  2 METAL2 ;
    ALUF7  I  519.75  0  2 METAL2 ;
    ALUF7  I  519.75  1142.85  2 METAL2 ;
    CLKN2  I  23.1  0  2 METAL2 ;
    CLKN2  I  23.1  1142.85  2 METAL2 ;
    DHTILO<0>  I  624.1  30.8  2 METAL2 ;
    DHTILO<1>  I  624.1  101.15  2 METAL2 ;
    DHTILO<10>  I  624.1  734.3  2 METAL2 ;
    DHTILO<11>  I  624.1  804.65  2 METAL2 ;
    DHTILO<12>  I  624.1  875  2 METAL2 ;
    DHTILO<13>  I  624.1  945.35  2 METAL2 ;
    DHTILO<14>  I  624.1  1015.7  2 METAL2 ;
    DHTILO<15>  I  624.1  1092.05  2 METAL2 ;
    DHTILO<2>  I  624.1  171.5  2 METAL2 ;
    DHTILO<3>  I  624.1  241.85  2 METAL2 ;
    DHTILO<4>  I  624.1  312.2  2 METAL2 ;
    DHTILO<5>  I  624.1  382.55  2 METAL2 ;
    DHTILO<6>  I  624.1  452.9  2 METAL2 ;
    DHTILO<7>  I  624.1  523.25  2 METAL2 ;
    DHTILO<8>  I  624.1  593.6  2 METAL2 ;
    DHTILO<9>  I  624.1  663.95  2 METAL2 ;
    ENALU  I  609  0  2 METAL2 ;
    ENALU  I  609  1142.85  2 METAL2 ;
    S1<0>  I  0  24.8  2 METAL2 ;
    S1<1>  I  0  95.15  2 METAL2 ;
    S1<10>  I  0  728.3  2 METAL2 ;
    S1<11>  I  0  798.65  2 METAL2 ;
    S1<12>  I  0  869  2 METAL2 ;
    S1<13>  I  0  939.35  2 METAL2 ;
    S1<14>  I  0  1009.7  2 METAL2 ;
    S1<15>  I  0  1080.05  2 METAL2 ;
    S1<2>  I  0  165.5  2 METAL2 ;
    S1<3>  I  0  235.85  2 METAL2 ;
    S1<4>  I  0  306.2  2 METAL2 ;
    S1<5>  I  0  376.55  2 METAL2 ;
    S1<6>  I  0  446.9  2 METAL2 ;
    S1<7>  I  0  517.25  2 METAL2 ;
    S1<8>  I  0  587.6  2 METAL2 ;
    S1<9>  I  0  657.95  2 METAL2 ;
    S2<0>  I  0  30.8  2 METAL2 ;
    S2<1>  I  0  101.15  2 METAL2 ;
    S2<10>  I  0  734.3  2 METAL2 ;
    S2<11>  I  0  804.65  2 METAL2 ;
    S2<12>  I  0  875  2 METAL2 ;
    S2<13>  I  0  945.35  2 METAL2 ;
    S2<14>  I  0  1015.7  2 METAL2 ;
    S2<15>  I  0  1086.05  2 METAL2 ;
    S2<2>  I  0  171.5  2 METAL2 ;
    S2<3>  I  0  241.85  2 METAL2 ;
    S2<4>  I  0  312.2  2 METAL2 ;
    S2<5>  I  0  382.55  2 METAL2 ;
    S2<6>  I  0  452.9  2 METAL2 ;
    S2<7>  I  0  523.25  2 METAL2 ;
    S2<8>  I  0  593.6  2 METAL2 ;
    S2<9>  I  0  663.95  2 METAL2 ;
    Vdd0  PWR  9.35  1142.85  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    Vdd1  PWR  116.7  1142.85  2 METAL1 ;
    Vdd1  PWR  116.7  0  2 METAL1 ;
    Vdd2  PWR  224.85  1142.85  2 METAL1 ;
    Vdd2  PWR  224.85  0  2 METAL1 ;
    Vdd3  PWR  299.2  1142.85  2 METAL1 ;
    Vdd3  PWR  299.2  0  2 METAL1 ;
    Vdd4  PWR  401.9  1142.85  2 METAL1 ;
    Vdd4  PWR  401.9  0  2 METAL1 ;
    Vdd5  PWR  431.8  1142.85  2 METAL1 ;
    Vdd5  PWR  431.8  0  2 METAL1 ;
    Vdd6  PWR  485.65  1142.85  2 METAL1 ;
    Vdd6  PWR  485.65  0  2 METAL1 ;
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    Vdd7  PWR  563.65  1142.85  2 METAL1 ;
    Vdd7  PWR  563.65  0  2 METAL1 ;
    Vdd8  PWR  595.25  1142.85  2 METAL1 ;
    Vdd8  PWR  595.25  0  2 METAL1 ;
    GND0  PWR  33.45  1142.85  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
    GND1  PWR  51.75  1142.85  2 METAL1 ;
    GND1  PWR  51.75  0  2 METAL1 ;
    GND2  PWR  188.2  1142.85  2 METAL1 ;
    GND2  PWR  188.2  0  2 METAL1 ;
    GND3  PWR  253.55  1142.85  2 METAL1 ;
    GND3  PWR  253.55  0  2 METAL1 ;
    GND4  PWR  343.4  1142.85  2 METAL1 ;
    GND4  PWR  343.4  0  2 METAL1 ;
    GND5  PWR  364.15  1142.85  2 METAL1 ;
    GND5  PWR  364.15  0  2 METAL1 ;
    GND6  PWR  455.9  1142.85  2 METAL1 ;
    GND6  PWR  455.9  0  2 METAL1 ;
    GND7  PWR  525.1  1142.85  2 METAL1 ;
    GND7  PWR  525.1  0  2 METAL1 ;
    GND8  PWR  619.35  1142.85  2 METAL1 ;
    GND8  PWR  619.35  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK20 ;
  TYPE GENERAL;
  DIMENSIONS   38.2 0  38.2 114   0 114 0 0;
  IOLIST ;

    ALU<15>  I  0  6  2 METAL2 ;
    ALUZ  I  0  60  2 METAL2 ;
    ASTATLO<0>  O  38.2  48  2 METAL2 ;
    ASTATLO<1>  O  38.2  102  2 METAL2 ;
    CLK2A  I  23.1  0  2 METAL2 ;
    CLK2A  I  23.1  114  2 METAL2 ;
    Vdd0  PWR  9.35  114  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    GND0  PWR  33.45  114  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK26 ;
  TYPE GENERAL;
  DIMENSIONS   133.1 0  133.1 546   0 546 0 0;
  IOLIST ;

    HA<0>  O  0  48  2 METAL2 ;
    HA<1>  O  133.1  12  2 METAL2 ;
    HA<2>  O  133.1  66  2 METAL2 ;
    HA<3>  O  133.1  120  2 METAL2 ;
    HA<4>  O  133.1  174  2 METAL2 ;
    HA<5>  O  133.1  228  2 METAL2 ;
    HA<9>  O  0  534  2 METAL2 ;
    HAT<8>  I  133.1  444  2 METAL2 ;
    HSEL  I  23.1  0  2 METAL2 ;
    HSEL  I  23.1  546  2 METAL2 ;
    MADDA<0>  O  133.1  48  2 METAL2 ;
    MADDA<1>  O  133.1  102  2 METAL2 ;
    MADDA<2>  O  133.1  156  2 METAL2 ;
    MADDA<3>  O  133.1  210  2 METAL2 ;
    MADDA<4>  O  133.1  264  2 METAL2 ;
    MADDA<5>  O  133.1  318  2 METAL2 ;
    MADDA<6>  O  133.1  372  2 METAL2 ;
    MADDA<7>  O  133.1  426  2 METAL2 ;
    MADDA<8>  O  133.1  480  2 METAL2 ;
    MADDB<0>  O  0  42  2 METAL2 ;
    MADDB<1>  O  0  96  2 METAL2 ;
    MADDB<2>  O  0  150  2 METAL2 ;
    MADDB<3>  O  0  204  2 METAL2 ;
```

```
    MADDB<4>  O  0  258  2 METAL2 ;
    MADDB<5>  O  0  312  2 METAL2 ;
    MADDB<6>  O  0  366  2 METAL2 ;
    MADDB<7>  O  0  420  2 METAL2 ;
    MADDB<8>  O  0  474  2 METAL2 ;
    NPC<0>  I  133.1  42  2 METAL2 ;
    NPC<1>  I  133.1  96  2 METAL2 ;
    NPC<2>  I  133.1  150  2 METAL2 ;
    NPC<3>  I  133.1  204  2 METAL2 ;
    NPC<4>  I  133.1  258  2 METAL2 ;
    NPC<5>  I  133.1  312  2 METAL2 ;
    NPC<6>  I  133.1  366  2 METAL2 ;
    NPC<7>  I  133.1  420  2 METAL2 ;
    NPC<8>  I  133.1  474  2 METAL2 ;
    SELHMADDL  I  118  0  2 METAL2 ;
    SELHMADDL  I  92.9  546  2 METAL2 ;
    SELHMADDM  I  61.8  0  2 METAL2 ;
    SELHMADDM  I  44.7  546  2 METAL2 ;
    HATL<0>  I  0  6  2 METAL2 ;
    HATL<1>  I  0  60  2 METAL2 ;
    HATL<2>  I  0  114  2 METAL2 ;
    HATL<3>  I  0  168  2 METAL2 ;
    HATL<4>  I  0  222  2 METAL2 ;
    HATL<5>  I  0  276  2 METAL2 ;
    HATL<6>  I  0  330  2 METAL2 ;
    HATL<7>  I  0  384  2 METAL2 ;
    HATL<8>  I  0  438  2 METAL2 ;
    HATL<9>  I  0  492  2 METAL2 ;
    Vdd0  PWR  9.35  546  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    Vdd1  PWR  75.55  546  2 METAL1 ;
    Vdd1  PWR  75.55  0  2 METAL1 ;
    Vdd2  PWR  104.25  546  2 METAL1 ;
    Vdd2  PWR  104.25  0  2 METAL1 ;
    GND0  PWR  33.45  546  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
    GND1  PWR  51.45  546  2 METAL1 ;
    GND1  PWR  51.45  0  2 METAL1 ;
    GND2  PWR  128.35  546  2 METAL1 ;
    GND2  PWR  128.35  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK27 ;
  TYPE GENERAL;
  DIMENSIONS   329.2 0  329.2 980.5   0 980.5 0 0;
  IOLIST ;

    HA<0>  I  161.4  0  2 METAL2 ;
    HA<0>  I  161.4  980.5  2 METAL2 ;
    HA<9>  I  219.2  0  2 METAL2 ;
    HA<9>  I  219.2  980.5  2 METAL2 ;
    HAT<8>  I  329.2  662.5  2 METAL2 ;
    HPMXIN<11>  I  329.2  692.5  2 METAL2 ;
    IRL<0>  O  329.2  68.5  2 METAL2 ;
    IRL<1>  O  329.2  128.5  2 METAL2 ;
    IRL<10>  O  329.2  668.5  2 METAL2 ;
    IRL<11>  O  329.2  728.5  2 METAL2 ;
    IRL<12>  O  329.2  788.5  2 METAL2 ;
    IRL<13>  O  329.2  848.5  2 METAL2 ;
    IRL<14>  O  329.2  908.5  2 METAL2 ;
    IRL<15>  O  329.2  968.5  2 METAL2 ;
    IRL<2>  O  329.2  188.5  2 METAL2 ;
    IRL<3>  O  329.2  248.5  2 METAL2 ;
    IRL<4>  O  329.2  308.5  2 METAL2 ;
    IRL<5>  O  329.2  368.5  2 METAL2 ;
    IRL<6>  O  329.2  428.5  2 METAL2 ;
    IRL<7>  O  329.2  488.5  2 METAL2 ;
    IRL<8>  O  329.2  548.5  2 METAL2 ;
    IRL<9>  O  329.2  608.5  2 METAL2 ;
```

```
    IRM<0>  O  0  68.5  2 METAL2 ;
    IRM<1>  O  0  128.5  2 METAL2 ;
    IRM<10>  O  0  668.5  2 METAL2 ;
    IRM<11>  O  0  728.5  2 METAL2 ;
    IRM<12>  O  0  788.5  2 METAL2 ;
    IRM<13>  O  0  848.5  2 METAL2 ;
    IRM<14>  O  0  908.5  2 METAL2 ;
    IRM<15>  O  0  968.5  2 METAL2 ;
    IRM<2>  O  0  188.5  2 METAL2 ;
    IRM<3>  O  0  248.5  2 METAL2 ;
    IRM<4>  O  0  308.5  2 METAL2 ;
    IRM<5>  O  0  368.5  2 METAL2 ;
    IRM<6>  O  0  428.5  2 METAL2 ;
    IRM<7>  O  0  488.5  2 METAL2 ;
    IRM<8>  O  0  548.5  2 METAL2 ;
    IRM<9>  O  0  608.5  2 METAL2 ;
    LEHL  I  69.8  0  2 METAL2 ;
    LEHL  I  69.8  980.5  2 METAL2 ;
    LEIR  I  27.6  0  2 METAL2 ;
    LEIR  I  27.6  980.5  2 METAL2 ;
    MEML<0>  I  329.2  32.5  2 METAL2 ;
    MEML<1>  I  329.2  92.5  2 METAL2 ;
    MEML<10>  I  329.2  632.5  2 METAL2 ;
    MEML<11>  I  329.2  698.5  2 METAL2 ;
    MEML<12>  I  329.2  752.5  2 METAL2 ;
    MEML<13>  I  329.2  812.5  2 METAL2 ;
    MEML<14>  I  329.2  872.5  2 METAL2 ;
    MEML<15>  I  329.2  932.5  2 METAL2 ;
    MEML<2>  I  329.2  152.5  2 METAL2 ;
    MEML<3>  I  329.2  212.5  2 METAL2 ;
    MEML<4>  I  329.2  272.5  2 METAL2 ;
    MEML<5>  I  329.2  332.5  2 METAL2 ;
    MEML<6>  I  329.2  392.5  2 METAL2 ;
    MEML<7>  I  329.2  452.5  2 METAL2 ;
    MEML<8>  I  329.2  512.5  2 METAL2 ;
    MEML<9>  I  329.2  572.5  2 METAL2 ;
    MEMM<0>  I  0  26.5  2 METAL2 ;
    MEMM<1>  I  0  86.5  2 METAL2 ;
    MEMM<10>  I  0  626.5  2 METAL2 ;
    MEMM<11>  I  0  686.5  2 METAL2 ;
    MEMM<12>  I  0  746.5  2 METAL2 ;
    MEMM<13>  I  0  806.5  2 METAL2 ;
    MEMM<14>  I  0  866.5  2 METAL2 ;
    MEMM<15>  I  0  926.5  2 METAL2 ;
    MEMM<2>  I  0  146.5  2 METAL2 ;
    MEMM<3>  I  0  206.5  2 METAL2 ;
    MEMM<4>  I  0  266.5  2 METAL2 ;
    MEMM<5>  I  0  326.5  2 METAL2 ;
    MEMM<6>  I  0  386.5  2 METAL2 ;
    MEMM<7>  I  0  446.5  2 METAL2 ;
    MEMM<8>  I  0  506.5  2 METAL2 ;
    MEMM<9>  I  0  566.5  2 METAL2 ;
    S2<0>  I  0  62.5  2 METAL2 ;
    S2<1>  I  0  122.5  2 METAL2 ;
    S2<10>  I  0  662.5  2 METAL2 ;
    S2<11>  I  0  722.5  2 METAL2 ;
    S2<12>  I  0  782.5  2 METAL2 ;
    S2<13>  I  0  842.5  2 METAL2 ;
    S2<14>  I  0  902.5  2 METAL2 ;
    S2<15>  I  0  962.5  2 METAL2 ;
    S2<2>  I  0  182.5  2 METAL2 ;
    S2<3>  I  0  242.5  2 METAL2 ;
    S2<4>  I  0  302.5  2 METAL2 ;
    S2<5>  I  0  362.5  2 METAL2 ;
    S2<6>  I  0  422.5  2 METAL2 ;
    S2<7>  I  0  482.5  2 METAL2 ;
    S2<8>  I  0  542.5  2 METAL2 ;
    S2<9>  I  0  602.5  2 METAL2 ;
    HOSTO<0>  O  329.2  62.5  2 METAL2 ;
```

```
    HOSTO<1>  O  329.2  122.5  2 METAL2 ;
    HOSTO<10>  O  329.2  656.5  2 METAL2 ;
    HOSTO<11>  O  329.2  722.5  2 METAL2 ;
    HOSTO<12>  O  329.2  782.5  2 METAL2 ;
    HOSTO<13>  O  329.2  842.5  2 METAL2 ;
    HOSTO<14>  O  329.2  902.5  2 METAL2 ;
    HOSTO<15>  O  329.2  962.5  2 METAL2 ;
    HOSTO<2>  O  329.2  182.5  2 METAL2 ;
    HOSTO<3>  O  329.2  242.5  2 METAL2 ;
    HOSTO<4>  O  329.2  302.5  2 METAL2 ;
    HOSTO<5>  O  329.2  362.5  2 METAL2 ;
    HOSTO<6>  O  329.2  422.5  2 METAL2 ;
    HOSTO<7>  O  329.2  482.5  2 METAL2 ;
    HOSTO<8>  O  329.2  542.5  2 METAL2 ;
    HOSTO<9>  O  329.2  602.5  2 METAL2 ;
    Vdd0  PWR  13.85  980.5  2 METAL1 ;
    Vdd0  PWR  13.85  0  2 METAL1 ;
    Vdd1  PWR  56.05  980.5  2 METAL1 ;
    Vdd1  PWR  56.05  0  2 METAL1 ;
    Vdd2  PWR  102.75  980.5  2 METAL1 ;
    Vdd2  PWR  102.75  0  2 METAL1 ;
    Vdd3  PWR  205.45  980.5  2 METAL1 ;
    Vdd3  PWR  205.45  0  2 METAL1 ;
    Vdd4  PWR  277.65  980.5  2 METAL1 ;
    Vdd4  PWR  277.65  0  2 METAL1 ;
    Vdd5  PWR  300.35  980.5  2 METAL1 ;
    Vdd5  PWR  300.35  0  2 METAL1 ;
    GND0  PWR  37.95  980.5  2 METAL1 ;
    GND0  PWR  37.95  0  2 METAL1 ;
    GND1  PWR  80.15  980.5  2 METAL1 ;
    GND1  PWR  80.15  0  2 METAL1 ;
    GND2  PWR  185.1  980.5  2 METAL1 ;
    GND2  PWR  185.1  0  2 METAL1 ;
    GND3  PWR  229.55  980.5  2 METAL1 ;
    GND3  PWR  229.55  0  2 METAL1 ;
    GND4  PWR  253.55  980.5  2 METAL1 ;
    GND4  PWR  253.55  0  2 METAL1 ;
    GND5  PWR  324.45  980.5  2 METAL1 ;
    GND5  PWR  324.45  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK33 ;
  TYPE GENERAL;
  DIMENSIONS   38.2 0  38.2 168   0 168 0 0;
  IOLIST ;

    ALUFB<4>  O  38.2  156  2 METAL2 ;
    ALUOP<0>  O  38.2  48  2 METAL2 ;
    ALUOP<1>  O  38.2  102  2 METAL2 ;
    CLK2B  I  23.1  0  2 METAL2 ;
    CLK2B  I  23.1  168  2 METAL2 ;
    IRM<0>  I  0  6  2 METAL2 ;
    IRM<1>  I  0  60  2 METAL2 ;
    IRM<2>  I  0  114  2 METAL2 ;
    Vdd0  PWR  9.35  168  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    GND0  PWR  33.45  168  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK34 ;
  TYPE GENERAL;
  DIMENSIONS   192.45 0  192.45 273.5   0 273.5 0 0;
  IOLIST ;

    DREQRESET<3>  I  192.45  258.05  2 METAL2 ;
    N$700  I  124.45  0  2 METAL2 ;
    N$700  I  124.45  273.5  2 METAL2 ;
    NEWOK  I  118.45  0  2 METAL2 ;
```

```
    NEWOK  I  118.45  273.5  2 METAL2 ;
    CLK  I  81.7  0  2 METAL2 ;
    CLK  I  81.7  273.5  2 METAL2 ;
    REQA<0>  I  192.45  18.8  2 METAL2 ;
    REQA<1>  I  192.45  86.55  2 METAL2 ;
    REQA<2>  I  192.45  154.3  2 METAL2 ;
    REQA<3>  I  192.45  222.05  2 METAL2 ;
    REQC<0>  O  192.45  8.8  2 METAL2 ;
    REQC<1>  O  192.45  76.55  2 METAL2 ;
    REQC<2>  O  192.45  144.3  2 METAL2 ;
    REQC<3>  O  192.45  212.05  2 METAL2 ;
    Vdd0  PWR  76.35  273.5  2 METAL1 ;
    Vdd0  PWR  76.35  0  2 METAL1 ;
    Vdd1  PWR  177.1  273.5  2 METAL1 ;
    Vdd1  PWR  177.1  0  2 METAL1 ;
    GND0  PWR  7.35  273.5  2 METAL1 ;
    GND0  PWR  7.35  0  2 METAL1 ;
    GND1  PWR  94.75  273.5  2 METAL1 ;
    GND1  PWR  94.75  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK54 ;
  TYPE GENERAL;
  DIMENSIONS   38.2 0  38.2 222   0 222 0 0;
  IOLIST ;

    LATCHIN<1>  I  0  60  2 METAL2 ;
    LATCHIN<2>  I  0  114  2 METAL2 ;
    LATCHIN<3>  I  0  168  2 METAL2 ;
    LATCHOUT<0>  O  38.2  48  2 METAL2 ;
    LATCHOUT<1>  O  38.2  102  2 METAL2 ;
    LATCHOUT<2>  O  38.2  156  2 METAL2 ;
    LATCHOUT<3>  O  38.2  210  2 METAL2 ;
    N$2306  I  23.1  0  2 METAL2 ;
    N$2306  I  23.1  222  2 METAL2 ;
    BRIN  I  0  6  2 METAL2 ;
    Vdd0  PWR  9.35  222  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    GND0  PWR  33.45  222  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK55 ;
  TYPE GENERAL;
  DIMENSIONS   38.2 0  38.2 924   0 924 0 0;
  IOLIST ;

    DHTILO<0>  O  38.2  48  2 METAL2 ;
    DHTILO<1>  O  38.2  102  2 METAL2 ;
    DHTILO<10>  O  38.2  588  2 METAL2 ;
    DHTILO<11>  O  38.2  642  2 METAL2 ;
    DHTILO<12>  O  38.2  696  2 METAL2 ;
    DHTILO<13>  O  38.2  750  2 METAL2 ;
    DHTILO<14>  O  38.2  804  2 METAL2 ;
    DHTILO<15>  O  38.2  858  2 METAL2 ;
    DHTILO<16>  O  38.2  912  2 METAL2 ;
    DHTILO<2>  O  38.2  156  2 METAL2 ;
    DHTILO<3>  O  38.2  210  2 METAL2 ;
    DHTILO<4>  O  38.2  264  2 METAL2 ;
    DHTILO<5>  O  38.2  318  2 METAL2 ;
    DHTILO<6>  O  38.2  372  2 METAL2 ;
    DHTILO<7>  O  38.2  426  2 METAL2 ;
    DHTILO<8>  O  38.2  480  2 METAL2 ;
    DHTILO<9>  O  38.2  534  2 METAL2 ;
    HSEL  I  23.1  0  2 METAL2 ;
    HSEL  I  23.1  924  2 METAL2 ;
    HOSTITL<0>  I  0  6  2 METAL2 ;
    HOSTITL<1>  I  0  60  2 METAL2 ;
    HOSTITL<10>  I  0  546  2 METAL2 ;
```

```
    HOSTITL<11>  I  0  600  2 METAL2 ;
    HOSTITL<12>  I  0  654  2 METAL2 ;
    HOSTITL<13>  I  0  708  2 METAL2 ;
    HOSTITL<14>  I  0  762  2 METAL2 ;
    HOSTITL<15>  I  0  816  2 METAL2 ;
    HOSTITL<2>  I  0  114  2 METAL2 ;
    HOSTITL<3>  I  0  168  2 METAL2 ;
    HOSTITL<4>  I  0  222  2 METAL2 ;
    HOSTITL<5>  I  0  276  2 METAL2 ;
    HOSTITL<6>  I  0  330  2 METAL2 ;
    HOSTITL<7>  I  0  384  2 METAL2 ;
    HOSTITL<8>  I  0  438  2 METAL2 ;
    HOSTITL<9>  I  0  492  2 METAL2 ;
    HSTWEN  I  0  870  2 METAL2 ;
    Vdd0  PWR  9.35  924  2 METAL1 ;
    Vdd0  PWR  9.35  0  2 METAL1 ;
    GND0  PWR  33.45  924  2 METAL1 ;
    GND0  PWR  33.45  0  2 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE BLK56 ;
  TYPE GENERAL;
  DIMENSIONS   1405.35 0  1405.35 2113.45   0 2113.45 0 0;
  IOLIST ;

    A<0>  I  172.35  0  2 METAL2 ;
    A<1>  I  153.05  0  2 METAL2 ;
    A<2>  I  133.75  0  2 METAL2 ;
    A<3>  I  114.45  0  2 METAL2 ;
    A<4>  I  95.15  0  2 METAL2 ;
    A<5>  I  75.85  0  2 METAL2 ;
    A<6>  I  56.55  0  2 METAL2 ;
    A<7>  I  23.95  0  2 METAL2 ;
    A<8>  I  18.7  0  2 METAL2 ;
    Din<0>  I  370.2  0  2 METAL2 ;
    Din<1>  I  514.2  0  2 METAL2 ;
    Din<2>  I  658.2  0  2 METAL2 ;
    Din<3>  I  802.2  0  2 METAL2 ;
    Din<4>  I  946.2  0  2 METAL2 ;
    Din<5>  I  1090.2  0  2 METAL2 ;
    Din<6>  I  1234.2  0  2 METAL2 ;
    Din<7>  I  1378.2  0  2 METAL2 ;
    Dout<0>  O  376.25  0  4 METAL2 ;
    Dout<1>  O  520.25  0  4 METAL2 ;
    Dout<2>  O  664.25  0  4 METAL2 ;
    Dout<3>  O  808.25  0  4 METAL2 ;
    Dout<4>  O  952.25  0  4 METAL2 ;
    Dout<5>  O  1096.25  0  4 METAL2 ;
    Dout<6>  O  1240.25  0  4 METAL2 ;
    Dout<7>  O  1384.25  0  4 METAL2 ;
    Wr  I  12.7  0  4 METAL2 ;
    Vdd  PWR  1401  0  8 METAL1 ;
    Vdd  PWR  1401  2113.45  8 METAL1 ;
    GND  PWR  4.35  0  8 METAL1 ;
    GND  PWR  4.35  2113.45  8 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD0 ;
  TYPE STANDARD ;
  DIMENSIONS   34.6 0  34.6 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    in3  I  24.25  63.2  4 METAL2 ;
```

```
    in3  I  24.25  0  4 METAL2 ;
    out  O  30.25  63.2  4 METAL2 ;
    out  O  30.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 34.6 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 34.6 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD1 ;
  TYPE STANDARD ;
  DIMENSIONS   33.9 0  33.9 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  15.15  63.2  4 METAL2 ;
    in0  I  15.15  0  4 METAL2 ;
    in1  I  4.35  63.2  4 METAL2 ;
    in1  I  4.35  0  4 METAL2 ;
    out  O  23.55  63.2  4 METAL2 ;
    out  O  23.55  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 33.9 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 33.9 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD2 ;
  TYPE STANDARD ;
  DIMENSIONS   14.7 0  14.7 63.2   0 63.2 0 0;
  IOLIST ;

    in  I  4.35  63.2  4 METAL2 ;
    in  I  4.35  0  4 METAL2 ;
    out  O  10.35  63.2  4 METAL2 ;
    out  O  10.35  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 14.7 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 14.7 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD3 ;
  TYPE STANDARD ;
  DIMENSIONS   34.15 0  34.15 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  5.8  63.2  4 METAL2 ;
    in0  I  5.8  0  4 METAL2 ;
    in1  I  11.8  63.2  4 METAL2 ;
    in1  I  11.8  0  4 METAL2 ;
    in2  I  17.8  63.2  4 METAL2 ;
    in2  I  17.8  0  4 METAL2 ;
    in3  I  23.8  63.2  4 METAL2 ;
    in3  I  23.8  0  4 METAL2 ;
    out  O  29.8  63.2  4 METAL2 ;
    out  O  29.8  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 34.15 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 34.15 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD4 ;
  TYPE STANDARD ;
  DIMENSIONS   40.6 0  40.6 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
```

```
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    in3  I  24.25  63.2  4 METAL2 ;
    in3  I  24.25  0  4 METAL2 ;
    in4  I  30.25  63.2  4 METAL2 ;
    in4  I  30.25  0  4 METAL2 ;
    out  O  36.25  63.2  4 METAL2 ;
    out  O  36.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 40.6 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 40.6 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD21 ;
  TYPE STANDARD ;
  DIMENSIONS   34.6 0  34.6 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    in3  I  24.25  63.2  4 METAL2 ;
    in3  I  24.25  0  4 METAL2 ;
    out  O  30.25  63.2  4 METAL2 ;
    out  O  30.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 34.6 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 34.6 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD22 ;
  TYPE STANDARD ;
  DIMENSIONS   29.2 0  29.2 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    out  O  24.85  63.2  4 METAL2 ;
    out  O  24.85  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 29.2 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 29.2 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD23 ;
  TYPE STANDARD ;
  DIMENSIONS   34.6 0  34.6 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    in3  I  24.25  63.2  4 METAL2 ;
    in3  I  24.25  0  4 METAL2 ;
```

```
    out  O  30.25  63.2  4 METAL2 ;
    out  O  30.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 34.6 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 34.6 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD24 ;
  TYPE STANDARD ;
  DIMENSIONS   29.2 0  29.2 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    out  O  24.85  63.2  4 METAL2 ;
    out  O  24.85  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 29.2 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 29.2 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD25 ;
  TYPE STANDARD ;
  DIMENSIONS   28.6 0  28.6 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    out  O  24.25  63.2  4 METAL2 ;
    out  O  24.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 28.6 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 28.6 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD28 ;
  TYPE STANDARD ;
  DIMENSIONS   20.1 0  20.1 63.2   0 63.2 0 0;
  IOLIST ;

    bufo#in  I  4.35  63.2  4 METAL2 ;
    bufo#in  I  4.35  0  4 METAL2 ;
    bufo#out  O  10.35  63.2  4 METAL2 ;
    bufo#out  O  10.35  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 20.1 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 20.1 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD29 ;
  TYPE STANDARD ;
  DIMENSIONS   37.95 0  37.95 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
```

```
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    out  O  33.6  63.2  4 METAL2 ;
    out  O  33.6  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 37.95 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 37.95 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD30 ;
  TYPE STANDARD ;
  DIMENSIONS   26.6 0  26.6 63.2   0 63.2 0 0;
  IOLIST ;

    bufo#in  I  4.35  63.2  4 METAL2 ;
    bufo#in  I  4.35  0  4 METAL2 ;
    bufo#out  O  16.85  63.2  4 METAL2 ;
    bufo#out  O  16.85  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 26.6 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 26.6 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD31 ;
  TYPE STANDARD ;
  DIMENSIONS   67.9 0  67.9 63.2   0 63.2 0 0;
  IOLIST ;

    Clk  I  32.05  63.2  4 METAL2 ;
    Clk  I  32.05  0  4 METAL2 ;
    D  I  4.35  63.2  4 METAL2 ;
    D  I  4.35  0  4 METAL2 ;
    Q  O  62.25  63.2  4 METAL2 ;
    Q  O  62.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 67.9 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 67.9 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD32 ;
  TYPE STANDARD ;
  DIMENSIONS   29.2 0  29.2 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    in2  I  18.25  63.2  4 METAL2 ;
    in2  I  18.25  0  4 METAL2 ;
    out  O  24.85  63.2  4 METAL2 ;
    out  O  24.85  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 29.2 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 29.2 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD35 ;
  TYPE STANDARD ;
  DIMENSIONS   77.3 0  77.3 63.2   0 63.2 0 0;
  IOLIST ;

    Clk  I  32.05  63.2  4 METAL2 ;
    Clk  I  32.05  0  4 METAL2 ;
```

```
    D  I  4.35  63.2  4 METAL2 ;
    D  I  4.35  0  4 METAL2 ;
    Q  O  62.9  63.2  4 METAL2 ;
    Q  O  62.9  0  4 METAL2 ;
    Qbar  O  72.75  63.2  4 METAL2 ;
    Qbar  O  72.75  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 77.3 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 77.3 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD36 ;
  TYPE STANDARD ;
  DIMENSIONS   67.9 0  67.9 63.2   0 63.2 0 0;
  IOLIST ;

    Clk  I  32.05  63.2  4 METAL2 ;
    Clk  I  32.05  0  4 METAL2 ;
    D  I  4.35  63.2  4 METAL2 ;
    D  I  4.35  0  4 METAL2 ;
    Q  O  62.25  63.2  4 METAL2 ;
    Q  O  62.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 67.9 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 67.9 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD37 ;
  TYPE STANDARD ;
  DIMENSIONS   33.4 0  33.4 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  4.35  63.2  4 METAL2 ;
    in0  I  4.35  0  4 METAL2 ;
    in1  I  12.55  63.2  4 METAL2 ;
    in1  I  12.55  0  4 METAL2 ;
    out  O  29.05  63.2  4 METAL2 ;
    out  O  29.05  0  4 METAL2 ;
    s0  I  19.05  63.2  4 METAL2 ;
    s0  I  19.05  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 33.4 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 33.4 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD38 ;
  TYPE STANDARD ;
  DIMENSIONS   22.6 0  22.6 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    out  O  18.25  63.2  4 METAL2 ;
    out  O  18.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 22.6 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 22.6 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD39 ;
  TYPE STANDARD ;
  DIMENSIONS   34.55 0  34.55 63.2   0 63.2 0 0;
  IOLIST ;
```

```
    bufi#in  I  24.2  63.2  4 METAL2 ;
    bufi#in  I  24.2  0  4 METAL2 ;
    bufi#out  O  30.2  63.2  4 METAL2 ;
    bufi#out  O  30.2  0  4 METAL2 ;
    level#in  I  10.75  63.2  4 METAL2 ;
    level#in  I  10.75  0  4 METAL2 ;
    level#out  O  18.2  63.2  4 METAL2 ;
    level#out  O  18.2  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 34.55 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 34.55 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD40 ;
  TYPE STANDARD ;
  DIMENSIONS   34.25 0  34.25 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  13.7  63.2  4 METAL2 ;
    in0  I  13.7  0  4 METAL2 ;
    in1  I  19.7  63.2  4 METAL2 ;
    in1  I  19.7  0  4 METAL2 ;
    in2  I  25.7  63.2  4 METAL2 ;
    in2  I  25.7  0  4 METAL2 ;
    out  O  4.35  63.2  4 METAL2 ;
    out  O  4.35  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 34.25 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 34.25 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD41 ;
  TYPE STANDARD ;
  DIMENSIONS   22.6 0  22.6 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  6.25  63.2  4 METAL2 ;
    in0  I  6.25  0  4 METAL2 ;
    in1  I  12.25  63.2  4 METAL2 ;
    in1  I  12.25  0  4 METAL2 ;
    out  O  18.25  63.2  4 METAL2 ;
    out  O  18.25  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 22.6 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 22.6 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD42 ;
  TYPE STANDARD ;
  DIMENSIONS   28.25 0  28.25 63.2   0 63.2 0 0;
  IOLIST ;

    in0  I  13.7  63.2  4 METAL2 ;
    in0  I  13.7  0  4 METAL2 ;
    in1  I  19.7  63.2  4 METAL2 ;
    in1  I  19.7  0  4 METAL2 ;
    out  O  4.35  63.2  4 METAL2 ;
    out  O  4.35  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 28.25 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 28.25 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD43 ;
```

```
  TYPE STANDARD ;
  DIMENSIONS   14.7 0  14.7 63.2   0 63.2 0 0;
  IOLIST ;

    in  I  4.35  63.2  4 METAL2 ;
    in  I  4.35  0  4 METAL2 ;
    out  O  10.35  63.2  4 METAL2 ;
    out  O  10.35  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 14.7 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 14.7 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD44 ;
  TYPE STANDARD ;
  DIMENSIONS   41.05 0  41.05 63.2   0 63.2 0 0;
  IOLIST ;

    bufi#in  I  24.2  63.2  4 METAL2 ;
    bufi#in  I  24.2  0  4 METAL2 ;
    bufi#out  O  36.7  63.2  4 METAL2 ;
    bufi#out  O  36.7  0  4 METAL2 ;
    level#in  I  10.75  63.2  4 METAL2 ;
    level#in  I  10.75  0  4 METAL2 ;
    level#out  O  18.2  63.2  4 METAL2 ;
    level#out  O  18.2  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 41.05 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 41.05 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD45 ;
  TYPE STANDARD ;
  DIMENSIONS   14.7 0  14.7 63.2   0 63.2 0 0;
  IOLIST ;

    in  I  4.35  63.2  4 METAL2 ;
    in  I  4.35  0  4 METAL2 ;
    out  O  10.35  63.2  4 METAL2 ;
    out  O  10.35  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 14.7 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 14.7 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD46 ;
  TYPE STANDARD ;
  DIMENSIONS   108.55 0  108.55 63.2   0 63.2 0 0;
  IOLIST ;

    Clk  I  5.05  63.2  4 METAL2 ;
    Clk  I  5.05  0  4 METAL2 ;
    Clr  I  91.55  63.2  2 METAL2 ;
    Clr  I  91.55  0  2 METAL2 ;
    D  I  23.2  63.2  4 METAL2 ;
    D  I  23.2  0  4 METAL2 ;
    Q  O  98.95  63.2  2 METAL2 ;
    Q  O  98.95  0  2 METAL2 ;
    Qbar  O  104.2  63.2  2 METAL2 ;
    Qbar  O  104.2  0  2 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 108.55 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 108.55 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
```

```
MODULE STD47 ;
TYPE STANDARD ;
DIMENSIONS   27.6 0  27.6 63.2   0 63.2 0 0;
IOLIST ;

  in0  I  13.05  63.2  4 METAL2 ;
  in0  I  13.05  0  4 METAL2 ;
  in1  I  19.05  63.2  4 METAL2 ;
  in1  I  19.05  0  4 METAL2 ;
  out  O  4.35  63.2  4 METAL2 ;
  out  O  4.35  0  4 METAL2 ;
  Vdd PWR 0 61.85 2 METAL1;
  Vdd PWR 27.6 61.85 2 METAL1;
  GND PWR 0 1.35 2 METAL1;
  GND PWR 27.6 1.35 2 METAL1;
ENDIOLIST ;
ENDMODULE ;
MODULE STD48 ;
TYPE STANDARD ;
DIMENSIONS   28.6 0  28.6 63.2   0 63.2 0 0;
IOLIST ;

  in0  I  6.25  63.2  4 METAL2 ;
  in0  I  6.25  0  4 METAL2 ;
  in1  I  12.25  63.2  4 METAL2 ;
  in1  I  12.25  0  4 METAL2 ;
  in2  I  18.25  63.2  4 METAL2 ;
  in2  I  18.25  0  4 METAL2 ;
  out  O  24.25  63.2  4 METAL2 ;
  out  O  24.25  0  4 METAL2 ;
  Vdd PWR 0 61.85 2 METAL1;
  Vdd PWR 28.6 61.85 2 METAL1;
  GND PWR 0 1.35 2 METAL1;
  GND PWR 28.6 1.35 2 METAL1;
ENDIOLIST ;
ENDMODULE ;
MODULE STD49 ;
TYPE STANDARD ;
DIMENSIONS   77.3 0  77.3 63.2   0 63.2 0 0;
IOLIST ;

  Clk  I  32.05  63.2  4 METAL2 ;
  Clk  I  32.05  0  4 METAL2 ;
  D  I  4.35  63.2  4 METAL2 ;
  D  I  4.35  0  4 METAL2 ;
  Q  O  62.9  63.2  4 METAL2 ;
  Q  O  62.9  0  4 METAL2 ;
  Qbar  O  72.75  63.2  4 METAL2 ;
  Qbar  O  72.75  0  4 METAL2 ;
  Vdd PWR 0 61.85 2 METAL1;
  Vdd PWR 77.3 61.85 2 METAL1;
  GND PWR 0 1.35 2 METAL1;
  GND PWR 77.3 1.35 2 METAL1;
ENDIOLIST ;
ENDMODULE ;
MODULE STD50 ;
TYPE STANDARD ;
DIMENSIONS   108.55 0  108.55 63.2   0 63.2 0 0;
IOLIST ;

  Clk  I  5.05  63.2  4 METAL2 ;
  Clk  I  5.05  0  4 METAL2 ;
  Clr  I  91.55  63.2  2 METAL2 ;
  Clr  I  91.55  0  2 METAL2 ;
  D  I  23.2  63.2  4 METAL2 ;
  D  I  23.2  0  4 METAL2 ;
  Q  O  98.95  63.2  2 METAL2 ;
  Q  O  98.95  0  2 METAL2 ;
  Qbar  O  104.2  63.2  2 METAL2 ;
```

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    Qbar  O  104.2  0  2 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 108.55 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 108.55 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD51 ;
  TYPE STANDARD ;
  DIMENSIONS   21.2 0  21.2 63.2   0 63.2 0 0;
  IOLIST ;

    in  I  4.35  63.2  4 METAL2 ;
    in  I  4.35  0  4 METAL2 ;
    out  O  16.85  63.2  4 METAL2 ;
    out  O  16.85  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 21.2 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 21.2 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD52 ;
  TYPE STANDARD ;
  DIMENSIONS   82.55 0  82.55 63.2   0 63.2 0 0;
  IOLIST ;

    bufon#out  O  9.75  63.2  4 METAL2 ;
    bufon#out  O  9.75  0  4 METAL2 ;
    bufop#out  O  72.8  63.2  4 METAL2 ;
    bufop#out  O  72.8  0  4 METAL2 ;
    tcout#en  I  39.65  63.2  4 METAL2 ;
    tcout#en  I  39.65  0  4 METAL2 ;
    tcout#in  I  45.65  63.2  4 METAL2 ;
    tcout#in  I  45.65  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 82.55 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 82.55 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE STD53 ;
  TYPE STANDARD ;
  DIMENSIONS   41.05 0  41.05 63.2   0 63.2 0 0;
  IOLIST ;

    bufi#in  I  24.2  63.2  4 METAL2 ;
    bufi#in  I  24.2  0  4 METAL2 ;
    bufi#out  O  36.7  63.2  4 METAL2 ;
    bufi#out  O  36.7  0  4 METAL2 ;
    level#in  I  10.75  63.2  4 METAL2 ;
    level#in  I  10.75  0  4 METAL2 ;
    level#out  O  18.2  63.2  4 METAL2 ;
    level#out  O  18.2  0  4 METAL2 ;
    Vdd PWR 0 61.85 2 METAL1;
    Vdd PWR 41.05 61.85 2 METAL1;
    GND PWR 0 1.35 2 METAL1;
    GND PWR 41.05 1.35 2 METAL1;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE PAD57 ;
  TYPE PAD ;
  DIMENSIONS   175 0  175 310.7   0 310.7 0 0;
  IOLIST ;
    padpin  PB  87.5  310.7  2 METAL1;
    Vdd  PWR  175  31  62 METAL1 ;
    Vdd  PWR  0  31  62 METAL1 ;
    GND  PWR  175  98.1  55 METAL1 ;
    GND  PWR  0  98.1  55 METAL1 ;
```

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    GND1  PWR  175  301.7  18 METAL1 ;
    GND1  PWR  0  301.7  18 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE PAD58 ;
  TYPE PAD ;
  DIMENSIONS   175 0  175 310.7   0 310.7 0 0;
  IOLIST ;

    padpin  PB  87.5  310.7  2 METAL1;
    Vdd  PWR  175  31  62 METAL1 ;
    Vdd  PWR  87.5  0  100 METAL1 ;
    Vdd  PWR  0  31  62 METAL1 ;
    GND  PWR  175  98.1  55 METAL1 ;
    GND  PWR  0  98.1  55 METAL1 ;
    GND1  PWR  175  301.7  18 METAL1 ;
    GND1  PWR  0  301.7  18 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE PAD59 ;
  TYPE PAD ;
  DIMENSIONS   175 0  175 310.7   0 310.7 0 0;
  IOLIST ;
    padpin  PB  87.5  310.7  2 METAL1;
    Vdd  PWR  175  31  62 METAL1 ;
    Vdd  PWR  0  31  62 METAL1 ;
    GND  PWR  175  98.1  55 METAL1 ;
    GND  PWR  87.5  0  100 METAL1 ;
    GND  PWR  0  98.1  55 METAL1 ;
    GND1  PWR  175  301.7  18 METAL1 ;
    GND1  PWR  0  301.7  18 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE PAD60 ;
  TYPE PAD ;
  DIMENSIONS   175 0  175 322.7   0 322.7 0 0;
  IOLIST ;

    inn  I  29.7  0  4 METAL2 ;
    padpin  PB  87.5  322.7  2 METAL1;
    Vdd  PWR  175  43  62 METAL1 ;
    Vdd  PWR  0  43  62 METAL1 ;
    GND  PWR  175  110.1  55 METAL1 ;
    GND  PWR  0  110.1  55 METAL1 ;
    GND1  PWR  175  313.7  18 METAL1 ;
    GND1  PWR  0  313.7  18 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE PAD61 ;
  TYPE PAD ;
  DIMENSIONS   175 0  175 322.7   0 322.7 0 0;
  IOLIST ;

    in  I  29.7  0  4 METAL2 ;
    padpin  PB  87.5  322.7  2 METAL1;
    Vdd  PWR  175  43  62 METAL1 ;
    Vdd  PWR  0  43  62 METAL1 ;
    GND  PWR  175  110.1  55 METAL1 ;
    GND  PWR  0  110.1  55 METAL1 ;
    GND1  PWR  175  313.7  18 METAL1 ;
    GND1  PWR  0  313.7  18 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE PAD62 ;
  TYPE PAD ;
  DIMENSIONS   175 0  175 322.7   0 322.7 0 0;
  IOLIST ;

    inn  I  29.7  0  4 METAL2 ;
```

```
    inp  I  38.45  0  4 METAL2 ;
    out  O  44.45  0  4 METAL2 ;
    padpin  PB  87.5  322.7  2 METAL1;
    Vdd  PWR  175  43  62 METAL1 ;
    Vdd  PWR  0  43  62 METAL1 ;
    GND  PWR  175  110.1  55 METAL1 ;
    GND  PWR  0  110.1  55 METAL1 ;
    GND1  PWR  175  313.7  18 METAL1 ;
    GND1  PWR  0  313.7  18 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;
  MODULE PAD63 ;
  TYPE PAD ;
  DIMENSIONS   175 0  175 317.35   0 317.35 0 0;
  IOLIST ;

    out  O  119.05  0  4 METAL2 ;
    padpin  PB  87.5  317.35  2 METAL1;
    Vdd  PWR  175  37.65  62 METAL1 ;
    Vdd  PWR  0  37.65  62 METAL1 ;
    GND  PWR  175  104.75  55 METAL1 ;
    GND  PWR  0  104.75  55 METAL1 ;
    GND1  PWR  175  308.35  18 METAL1 ;
    GND1  PWR  0  308.35  18 METAL1 ;
  ENDIOLIST ;
  ENDMODULE ;

  MODULE t1;
  TYPE PARENT;
  IOLIST;
  S0 PI RIGHT -2937.949951;
  S1 PI RIGHT -871.599976;
  S2 PI RIGHT -1430.199951;
  S3 PI RIGHT -3112.949951;
  S4 PI RIGHT -1988.800049;
  S5 PI RIGHT 524.799988;
  S6 PI RIGHT 1083.400024;
  S7 PI RIGHT 1642;
  S8 PI RIGHT 2072.149902;
  S9 PI RIGHT 2247.149902;
  S10 PI RIGHT 2422.149902;
  S11 PI RIGHT 2597.149902;
  S12 PI RIGHT 2772.149902;
  S13 PI RIGHT -2768.949951;
  S14 PI RIGHT -2547.350098;
  S15 PI RIGHT -173.399994;
  S16 PI BOTTOM -88;
  S17 PI BOTTOM -786.200012;
  S18 PI BOTTOM -1344.800049;
  S19 PI BOTTOM -1903.400024;
  S20 PI BOTTOM -3035.75;
  S21 PI BOTTOM 1727.400024;
  S22 PI BOTTOM 2285.949951;
  S23 PI BOTTOM 2509.75;
  S24 PI BOTTOM 2684.75;
  S25 PI BOTTOM -2685.75;
  S26 PI BOTTOM 2859.75;
  S27 PI BOTTOM -2335.75;
  S28 PI BOTTOM 610.200012;
  S29 PI BOTTOM -2860.75;
  S30 PI BOTTOM 1168.800049;
  S31 PI BOTTOM -2510.75;
  S32 PI LEFT -871.599976;
  S33 PI LEFT 1642;
  S34 PI LEFT -3116.25;
  S35 PI LEFT 1083.400024;
  S36 PI LEFT 524.799988;
  S37 PI LEFT -173.399994;
  S38 PI LEFT -1988.800049;
```

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  S39 PI LEFT -2541.350098;
  S40 PI LEFT -2941.25;
  S41 PI LEFT 2422.149902;
  S42 PI LEFT 2247.149902;
  S43 PI LEFT 2072.149902;
  S44 PI LEFT -2766.25;
  S45 PI LEFT -1430.199951;
  S46 PI LEFT 2597.149902;
  S47 PI LEFT 2772.149902;
  S48 PI TOP -88;
  S49 PI TOP -2510.75;
  S50 PI TOP -2685.75;
  S51 PI TOP -2860.75;
  S52 PI TOP -3035.75;
  S53 PI TOP 2509.75;
  S54 PI TOP 2334.75;
  S55 PI TOP 2159.75;
  S56 PI TOP -2335.75;
  S57 PI TOP 610.200012;
  S58 PI TOP 1727.400024;
  S59 PI TOP 2859.75;
  S60 PI TOP 2684.75;
  S61 PI TOP -786.200012;
  S62 PI TOP -1344.800049;
  S63 PI TOP -1903.400024;
  S64 PI TOP 1168.800049;
  ENDIOLIST;

  NETWORK;
  C0 BLK5 N126 N127 N128 N129 N138 N139 N644 N645 N648
        N652 N656 N789 N795 N874 ;
  C1 BLK7 N124 N125 N126 N127 N128 N129 N130 N131 N132
        N133 N134 N135 N136 N137 N138 N139 N180
        N205 N206 N207 N208 N209 N210 N211 N212
        N213 N214 N215 N216 N217 N218 N219 N220
        N262 N268 N269 N270 N271 N272 N273 N274
        N275 N276 N277 N278 N279 N280 N281 N282
        N283 N284 N285 N286 N287 N288 N289 N290
        N291 N292 N293 N294 N295 N296 N297 N298
        N299 N487 N644 N645 N646 N647 N648 N649
        N650 N651 N656 N706 N707 N708 N710 N768
        N779 N780 N781 N782 N783 N784 N785 N786
        N787 N789 N829 N830 N831 N832 N834 N835
        N836 N837 N842 N843 N844 N845 N846 N847
        N848 N849 N850 N851 N852 N853 N854 N855
        N856 N857 N858 N859 N860 N861 N862 N865
        N866 N867 N868 N869 N870 N871 N872 N873
        N874 N922 N923 N924 N925 N926 N927 N928
        N929 N930 N931 N932 N933 N934 N935 N936
        N937 N938 N939 N940 N941 N942 N943 N944
        N945 N946 N947 N948 N949 N950 N951 N952
        N953 ;
  C2 BLK13 N303 N304 N305 N306 N307 N308 N315 N344 N345
        N346 N347 N348 N487 N488 N493 N660 N661
        N662 N663 N664 N665 N670 N692 N693 N696
        N699 N700 N701 N702 N703 N704 N705 N864
        ;
  C3 BLK34 N221 N249 N251 N486 N791 N792 N793 N794 N1054
        N1055 N1056 N1057 ;
  C4 BLK54 N418 N419 N420 N421 N422 N423 N424 N434 N483
        ;
  C5 BLK11 N124 N125 N132 N133 N134 N181 N182 N183 N184
        N185 N263 N264 N265 N266 N392 N393 N401
        N402 N403 N404 N440 N443 N457 N470 N486
        N796 N829 N842 N843 N844 N845 N846 N875
        N877 ;
  C6 BLK8 N124 N125 N132 N133 N134 N135 N136 N137 N138
        N187 N188 N189 N190 N191 N192 N193 N194
        N195 N196 N197 N198 N199 N200 N201 N202
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      N203 N204 N487 N643 N712 N713 N770 N771
      N772 N773 N774 N775 N776 N777 N778 N779
      N780 N781 N782 N783 N784 N785 N786 N787
      N788 N796 N840 N841 N863 N865 N866 N867
      N868 N869 N870 N871 N872 N873 N896 ;
  C7 BLK27 N660 N666 N669 N670 N674 N675 N676 N677 N678
      N679 N680 N681 N682 N683 N684 N685 N686
      N687 N688 N689 N690 N691 N692 N693 N694
      N695 N696 N697 N698 N699 N700 N701 N702
      N703 N704 N705 N709 N711 N732 N733 N734
      N735 N736 N737 N738 N739 N740 N741 N742
      N743 N744 N745 N746 N747 N748 N749 N750
      N751 N752 N753 N754 N755 N756 N757 N758
      N759 N760 N761 N762 N763 N813 N814 N815
      N816 N817 N818 N819 N820 N821 N822 N823
      N824 N825 N826 N827 N828 N982 N983 N984
      N985 N986 N987 N988 N989 N990 N991 N992
      N993 N994 N995 N996 N997 ;
  C8 BLK26 N660 N661 N662 N663 N664 N665 N666 N669 N671
      N714 N715 N716 N717 N718 N719 N720 N721
      N722 N723 N724 N725 N726 N727 N728 N729
      N730 N731 N770 N771 N772 N773 N774 N775
      N776 N777 N778 N838 N839 N956 N957 N958
      N959 N960 N961 N962 N963 N964 N965 ;
  C9 BLK55 N626 N627 N628 N629 N630 N631 N632 N633 N634
      N635 N636 N637 N638 N639 N640 N641 N642
      N671 N966 N967 N968 N969 N970 N971 N972
      N973 N974 N975 N976 N977 N978 N979 N980
      N981 N1000 ;
  C10 BLK17 N488 N494 N495 N496 N497 N498 N499 N500 N501
      N502 N503 N504 N505 N506 N507 N508 N509
      N510 N511 N512 N513 N514 N515 N516 N517
      N518 N519 N520 N521 N522 N523 N524 N525
      N526 N527 N528 N529 N530 N531 N532 N533
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      N622 N623 N624 N625 N674 N675 N676 N677
      N678 N679 N680 N681 N682 N683 N684 N685
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      N825 N826 N827 N828 N831 N832 N833 N847
      N848 N849 N850 N851 N852 N853 N854 N855
      N856 N857 N858 N859 N860 N861 N862 N864
      ;
  C11 BLK18 N124 N125 N126 N127 N128 N129 N130 N131 N132
      N133 N134 N135 N136 N137 N138 N139 N494
      N495 N546 N547 N548 N549 N550 N551 N552
      N553 N554 N555 N556 N557 N558 N559 N560
      N561 N610 N611 N612 N613 N614 N615 N616
      N617 N618 N619 N620 N621 N622 N623 N624
      N625 N829 N830 N883 N884 N885 N886 ;
  C12 BLK15 N124 N125 N126 N127 N128 N129 N130 N131 N132
      N133 N134 N135 N136 N137 N138 N139 N494
      N495 N530 N531 N532 N533 N534 N535 N536
      N537 N538 N539 N540 N541 N542 N543 N544
      N545 N594 N595 N596 N597 N598 N599 N600
      N601 N602 N603 N604 N605 N606 N607 N608
      N609 N829 N830 N881 N882 N893 N894 ;
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C13 BLK14 N124 N125 N126 N127 N128 N129 N130 N131 N132
      N133 N134 N135 N136 N137 N138 N139 N494
      N495 N514 N515 N516 N517 N518 N519 N520
      N521 N522 N523 N524 N525 N526 N527 N528
      N529 N578 N579 N580 N581 N582 N583 N584
      N585 N586 N587 N588 N589 N590 N591 N592
      N593 N829 N830 N889 N890 N891 N892 ;
C14 BLK10 N124 N125 N126 N127 N128 N129 N130 N131 N132
      N133 N134 N135 N136 N137 N138 N139 N494
      N495 N498 N499 N500 N501 N502 N503 N504
      N505 N506 N507 N508 N509 N510 N511 N512
      N513 N562 N563 N564 N565 N566 N567 N568
      N569 N570 N571 N572 N573 N574 N575 N576
      N577 N829 N830 N879 N880 N887 N888 ;
C15 BLK20 N131 N140 N301 N302 N487 ;
C16 BLK16 N157 N158 N159 N160 N161 N162 N163 N164 N165
      N166 N167 N168 N169 N170 N171 N172 N490
      ;
C17 BLK33 N169 N173 N174 N488 N690 N691 N698 ;
C18 BLK19 N141 N142 N143 N144 N145 N146 N147 N148 N149
      N150 N151 N152 N153 N154 N155 N156 N157
      N158 N159 N160 N161 N162 N163 N164 N490
      N626 N627 N628 N629 N630 N631 N632 N633
      N635 N636 N637 N638 N639 N640 N641 N642
      N653 N797 N798 N799 N800 N801 N802 N803
      N804 N805 N806 N807 N808 N809 N810 N811
      N812 N813 N814 N815 N816 N817 N818 N819
      N820 N821 N822 N823 N824 N825 N826 N827
      N828 ;
C19 BLK12 N484 N485 N488 N491 N492 N659 N917 N955 N1058
      ;
C20 BLK6 N263 N264 N265 N266 N268 N269 N270 N271 N272
      N273 N274 N275 N276 N277 N278 N279 N280
      N281 N282 N283 N284 N285 N286 N287 N288
      N289 N290 N291 N292 N293 N294 N295 N296
      N297 N298 N299 N267 ;
C21 BLK9 N181 N182 N183 N184 N185 N187 N188 N189 N190
      N191 N192 N193 N194 N195 N196 N197 N198
      N199 N200 N201 N202 N203 N204 N186 ;
C22 BLK56 N714 N715 N716 N717 N718 N719 N720 N721 N722
      N641 N642 N628 N629 N630 N631 N632 N633
      N762 N763 N750 N751 N752 N753 N754 N755
      N765 ;
C23 BLK56 N723 N724 N725 N726 N727 N728 N729 N730 N731
      N626 N627 N635 N636 N637 N638 N639 N640
      N748 N749 N756 N757 N758 N759 N760 N761
      N765 ;
C24 BLK56 N714 N715 N716 N717 N718 N719 N720 N721 N722
      N641 N642 N628 N629 N630 N631 N632 N633
      N746 N747 N734 N735 N736 N737 N738 N739
      N764 ;
C25 BLK56 N723 N724 N725 N726 N727 N728 N729 N730 N731
      N626 N627 N635 N636 N637 N638 N639 N640
      N732 N733 N740 N741 N742 N743 N744 N745
      N764 ;
C27 STD46 N486 N388 N378 U3 N390 ;
C28 STD45 N696 N415 ;
C29 STD48 N373 N488 N387 N765 ;
C30 STD51 N386 N670 ;
C31 STD52 N74 N90 N1053 N939 ;
C32 STD52 N73 N89 N1053 N938 ;
C33 STD53 N1052 N929 N120 N1052 ;
C34 STD47 N390 N391 N376 ;
C35 STD38 N371 N671 N375 ;
C36 STD38 N634 N366 N654 ;
C37 STD53 N1038 N923 N106 N1038 ;
C38 STD53 N1037 N922 N105 N1037 ;
C39 STD44 N1036 N1000 N72 N1036 ;
C40 STD44 N1035 N998 N71 N1035 ;
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C41 STD44 N1034 N919 N70 N1034 ;
C42 STD44 N1033 N920 N69 N1033 ;
C43 STD44 N1032 N918 N68 N1032 ;
C44 STD39 N1031 N921 N67 N1031 ;
C45 STD39 N1030 N955 N66 N1030 ;
C46 STD39 N1029 N917 N65 N1029 ;
C47 STD52 N88 N104 N1053 N945 ;
C48 STD52 N87 N103 N1053 N944 ;
C49 STD52 N86 N102 N1053 N943 ;
C50 STD52 N85 N101 N1053 N942 ;
C51 STD52 N84 N100 N1053 N941 ;
C52 STD53 N1051 N928 N119 N1051 ;
C53 STD53 N1050 N927 N118 N1050 ;
C54 STD53 N1049 N926 N117 N1049 ;
C55 STD52 N83 N99 N1053 N940 ;
C56 STD52 N82 N98 N1053 N953 ;
C57 STD52 N81 N97 N1053 N952 ;
C58 STD48 N376 N375 N654 N378 ;
C59 STD52 N80 N96 N1053 N951 ;
C60 STD45 N391 N388 ;
C61 STD53 N1048 N925 N116 N1048 ;
C62 STD53 N1047 N924 N115 N1047 ;
C63 STD53 N1046 N937 N114 N1046 ;
C64 STD53 N1045 N936 N113 N1045 ;
C65 STD52 N79 N95 N1053 N950 ;
C66 STD51 N141 N124 ;
C67 STD51 N142 N125 ;
C68 STD51 N143 N126 ;
C69 STD51 N144 N127 ;
C70 STD51 N145 N128 ;
C71 STD51 N146 N129 ;
C72 STD51 N147 N130 ;
C73 STD51 N148 N131 ;
C74 STD51 N149 N132 ;
C75 STD51 N150 N133 ;
C76 STD51 N151 N134 ;
C77 STD51 N152 N135 ;
C78 STD51 N153 N136 ;
C79 STD51 N154 N137 ;
C80 STD51 N155 N138 ;
C81 STD51 N156 N139 ;
C82 STD3 N170 N178 N173 N169 N165 ;
C83 STD22 N176 N169 N175 N166 ;
C84 STD4 N174 N169 N176 N175 N178 N167 ;
C85 STD38 N170 N169 N168 ;
C86 STD41 N173 N174 N170 ;
C87 STD45 N170 N175 ;
C88 STD0 N177 N178 N173 N179 N171 ;
C89 STD0 N177 N178 N176 N179 N172 ;
C90 STD45 N173 N176 ;
C91 STD45 N174 N177 ;
C92 STD45 N169 N178 ;
C93 STD45 N670 N179 ;
C94 STD38 N242 N796 N658 ;
C95 STD42 N228 N769 N257 ;
C96 STD38 N256 N255 N254 ;
C97 STD35 N488 N256 U4 N837 ;
C98 STD29 N836 N878 N488 N710 ;
C99 STD32 N258 N224 N261 N251 ;
C100 STD41 N794 N793 N236 ;
C101 STD41 N792 N791 N245 ;
C102 STD41 N1057 N1056 N233 ;
C103 STD41 N1055 N1054 N230 ;
C104 STD38 N236 N245 N228 ;
C105 STD38 N233 N230 N258 ;
C106 STD38 N227 N769 N247 ;
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