LDL06E09A

LDLABO

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1 論理譜

```
logicname LDL06E09A

entity main
input  RESET;
input  SCLK;
input  DATA[4];
output SEGOUT[7];
output KETAOUT[8];
output KETA[3];

bitr blankcount[4];
bitr state;
bitr sclkp[2];
bitr ketacount[3];

{
output TOP; TOP=state;
}
   if (state==1)
      switch(ketacount)
         case 0: KETAOUT.0=1;
         case 1: KETAOUT.1=1;
         case 2: KETAOUT.2=1;
         case 3: KETAOUT.3=1;
         case 4: KETAOUT.4=1;
         case 5: KETAOUT.5=1;
         case 6: KETAOUT.6=1;
         case 7: KETAOUT.7=1;
      endswitch
   endif

   switch(DATA)
      case 0: SEGOUT=0x7f;
      case 1: SEGOUT=0x06;
      case 2: SEGOUT=0x5b;
      case 3: SEGOUT=0x4f;
      case 4: SEGOUT=0x66;
      case 5: SEGOUT=0x6d;
      case 6: SEGOUT=0x7d;
      case 7: SEGOUT=0x07;
      case 8: SEGOUT=0x7f;
      case 9: SEGOUT=0x67;
      case 0xa: SEGOUT=0x77;
      case 0xb: SEGOUT=0x7c;
      case 0xc: SEGOUT=0x39;
      case 0xd: SEGOUT=0x5e;
      case 0xe: SEGOUT=0x79;
      case 0xf: SEGOUT=0x71;
   endswitch

   KETA=ketacount;

   if (RESET)
      state=0;
   else
      if (blankcount==6)
         state=1;
      else
         if (sclkp.0)
            state=0;
         else
            state=state;
         endif
      endif
   endif

   if (RESET)
      sclkp=0;
   else
      if (SCLK)
         switch(sclkp)
            case 0: sclkp=1;
            case 1: sclkp=2;
            default: sclkp=sclkp;
         endswitch
      else
         sclkp=0;
      endif
   endif

   if (RESET)
      blankcount=0;
   else
      if (state==1)
         if (sclkp.0)
            blankcount=0;
         else
            blankcount=blankcount;
```

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         endif
      else
         blankcount=blankcount+1;
      endif
   endif

   if (RESET)
      ketacount=0;
   else
      if (blankcount==3)
         ketacount=ketacount+1;
      else
         ketacount=ketacount;
      endif
   endif

ende

entity sim
output RESET;
output SCLK;
output DATA[4];
output SEGOUT[7];
output KETAOUT[8];
output KETA[3];

bitn node_KETA[3];
bitr tc[10];

   part main(RESET,SCLK,DATA,SEGOUT,KETAOUT
            ,node_KETA)

   KETA=node_KETA;

   tc=tc+1;

   if (tc<5) RESET=1; endif

   SCLK=tc.4;

   switch(node_KETA)
      case 0: DATA=1;
      case 1: DATA=2;
      case 2: DATA=3;
      case 3: DATA=4;
      case 4: DATA=5;
      case 5: DATA=6;
      case 6: DATA=7;
      case 7: DATA=8;
   endswitch

ende

endlogic
```

2　動作

図 1　動作 (1/8)

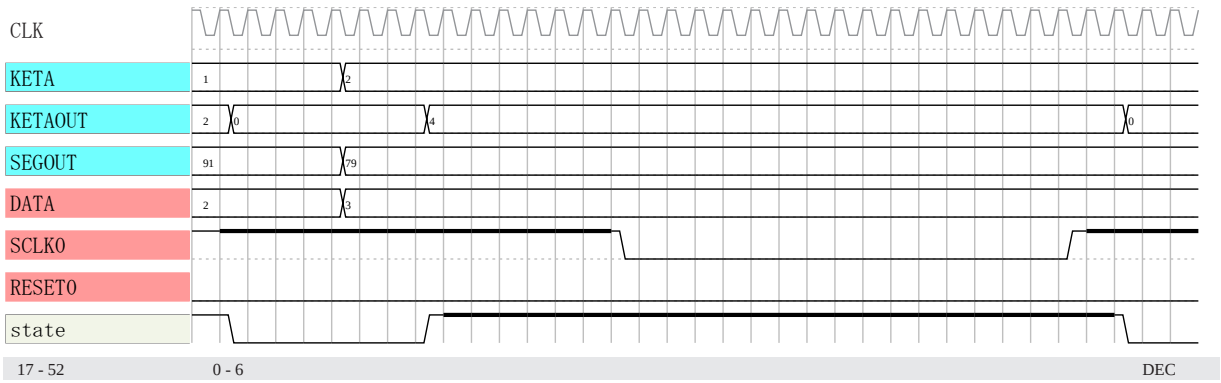


図 2　動作 (2/8)

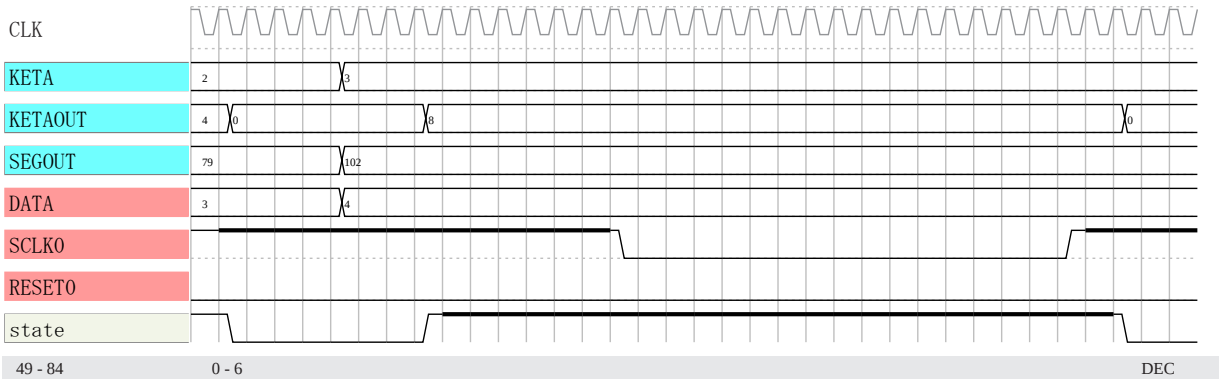


図 3　動作 (3/8)

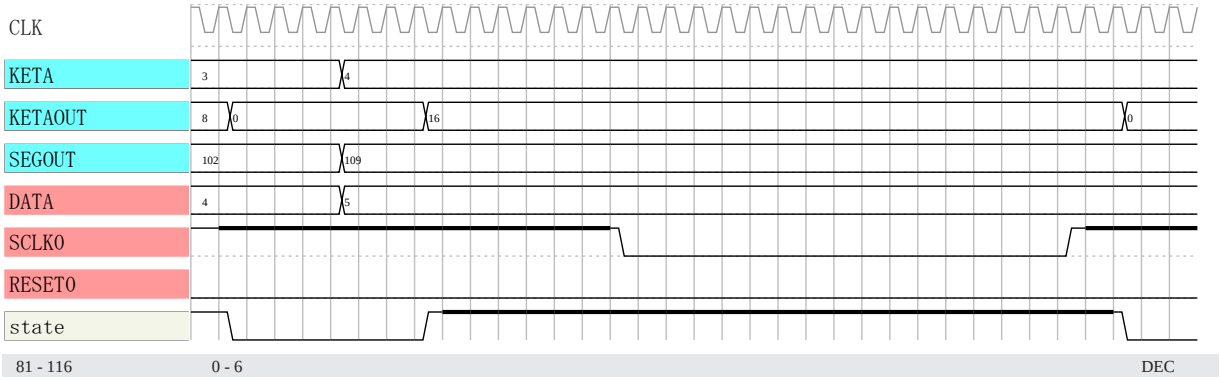


図 4　動作 (4/8)

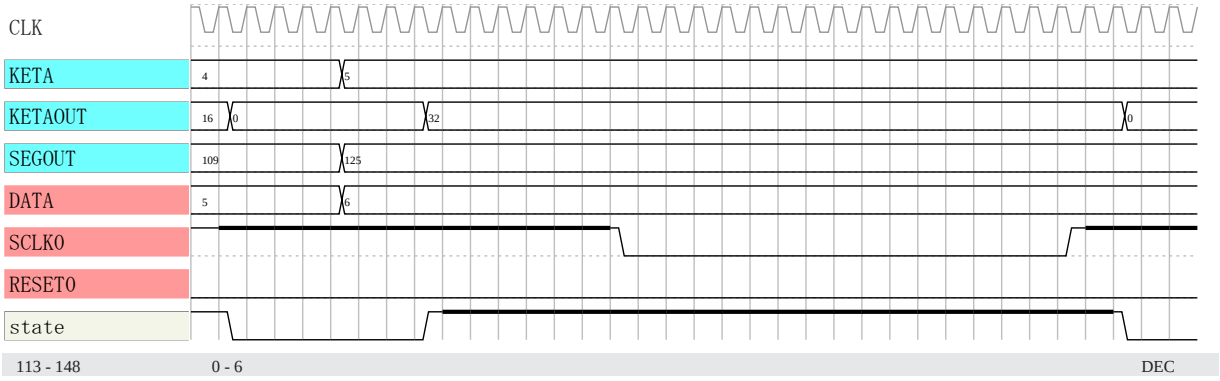


図 5　動作 (5/8)

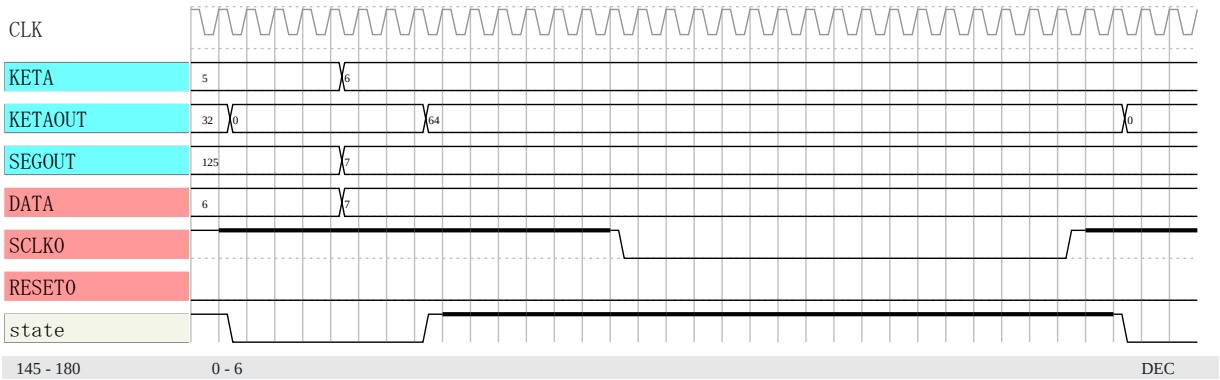


図 6　動作 (6/8)

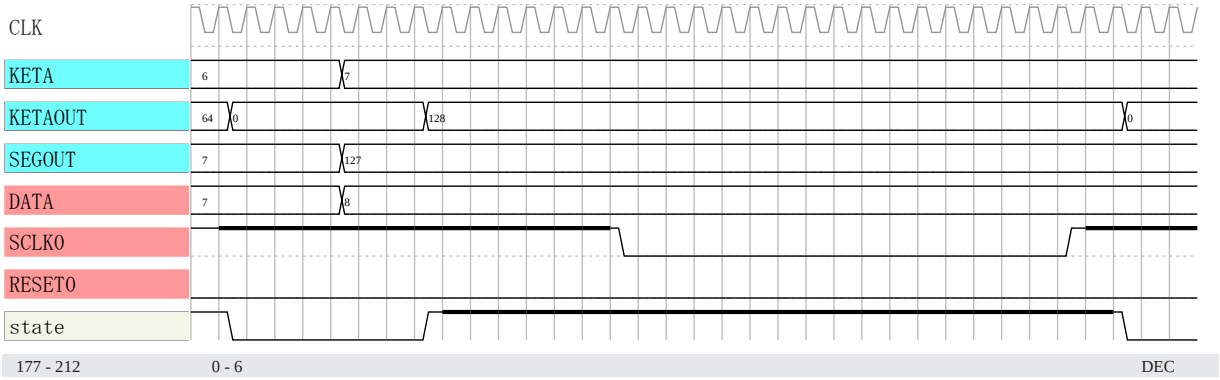


図 7　動作 (7/8)

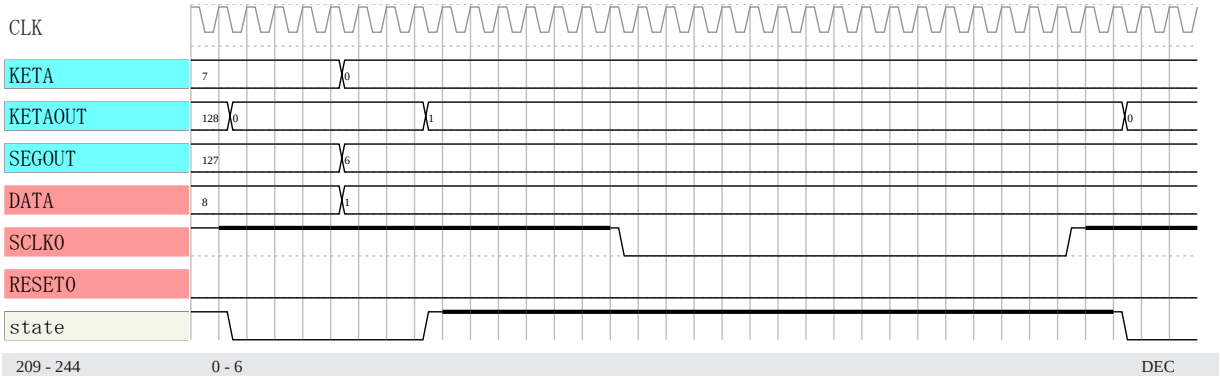
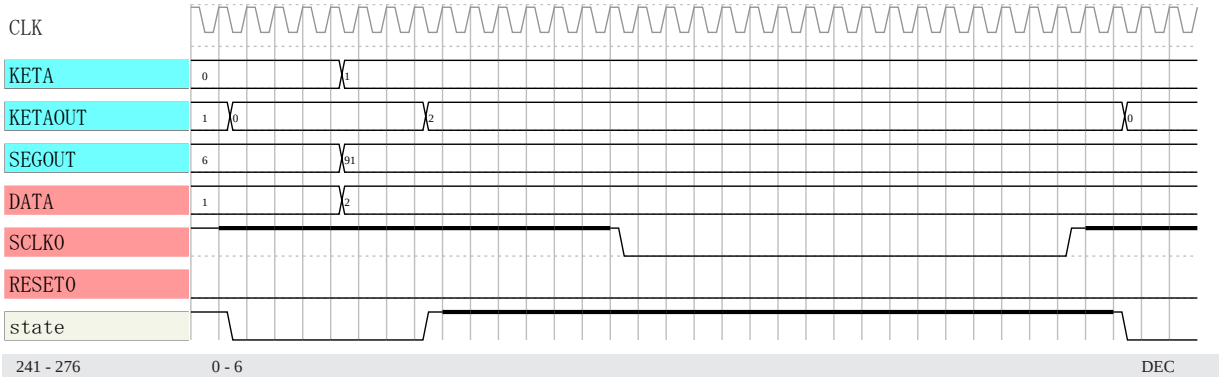


図 8　動作 (8/8)


CLK
KETA
KETAOUT
SEGOUT
DATA
SCLK0
RESET0
state
241 - 276
0 - 6
DEC