

```
//SL1935.C programiranje tega cipa preko I2C busa
```

```
//digi sat tuner sinti
```

```
//s57uuu aug 2004 delujoca verzija
```

```
#include<stdio.h>
```

```
#include<dos.h> //inportb
```

```
int LPT=0x378;
```

```
//-----  
//-----routines for tuner synth (SL1935) programming-----
```

```
//d0 (pin2) = SCL, d1 (pin3) = SDA, error (pin15) = viod SDA
```

```
void del10us() //10 microsec delay  
{int i;for (i=0;i<100;i++){}}
```

```
void cddd() //SCL low, SDA low (transistor invert!)
```

```
{outportb(LPT,0xFF);del10us();}
```

```
void cddg() //SCL low, SDA high
```

```
{outportb(LPT,0xFD);del10us();}
```

```
void cgdd() //SCL high, SDA low
```

```
{outportb(LPT,0xFE);del10us();}
```

```
void cgdg() //SCL high, SDA high
```

```
{outportb(LPT,0xFC);del10us();}
```

```
//-----
```

```
int prog3302(unsigned char bb[]) //send 5 bytes bb[] to I2C bus
```

```
{  
int i,j,a;unsigned char b;  
cgdd();cddd(); //START  
a=0;  
for (i=0;i<5;i++)  
{  
b=bb[i];  
for (j=0;j<8;j++)  
{  
if ((b&128)==128)  
{cddg();cgdg();cddg();}
```

```

else
    {cddd();cgdd();cddd();}
b=b<<1;
}
cddg();cgdg();a=a+(inportb(LPT+1)&8);cddg(); //ACK
}
cgdd();cgdg(); //STOP
return a/8;
}

```

```
//-----
```

```

int beri1935(unsigned char adr) //read status byte from s11935
{
int i,a;unsigned char b;
cgdd();cddd(); //START
b=192+2*adr+1;
for (i=0;i<8;i++)
{
if ((b&128)==128)
    {cddg();cgdg();cddg();}
else
    {cddd();cgdd();cddd();}
b=b<<1;
}
cddg();cgdg();a=(inportb(LPT+1)&8);cddg(); //ACK
b=0;
for (i=0;i<8;i++)
{
cddg();cgdg();b=(b<<1)+((inportb(LPT+1)&8)/8);cddg();
}
cddg();cgdg();cddg(); //ACK
cddd();cgdd();cgdg(); //STOP
if (a==0) return b; else return -a;
}

```

```
//*****
```

```

int main()
{
unsigned char bb[5],adr,cp,bp,buf,tm,rr,vco,p0;
double xtal,fref,frek;
unsigned int n;

```

```
int stat;

adr=1;
cp=0;
bp=0;
buf=0;
tm=0;
rr=1;
vco=0;
p0=0;

bb[0]=192+2*adr;
bb[1]=0x3;bb[2]=0xE8;
bb[3]=128+cp*32+rr;
bb[4]=tm*32+vco*16+bp*8+buf*2+p0;

xtal=4000000.00;
fref=xtal/4;

printf("\n\n Daj frekvenco!");scanf("%lf",&frek);fflush(stdin);

do
{
n=frek*1000000.0/fref;
bb[1]=n/256;bb[2]=n%256;
if (frek<1400) bb[4]=bb[4]|16; else bb[4]=bb[4]&239;
stat=prog3302(bb);
if (stat!=0) printf("\n Prog3302: no ACK, stat= %d",stat);
sleep(1);
stat=beri1935(adr);
if (stat<0)
printf("\n Beri1935: no ACK");
else
{printf("\n POR: %d",stat&128)/128);printf(" LOCK: %d",stat&64)/64);}
printf("\n\n Daj frekvenco (0=konec)");scanf("%lf",&frek);fflush(stdin);
}
while (frek!=0);

}
```