```
.SECTION/DM         data1;
.var        stat_flag;
//
.var TAB_DISP[16] = {0x3F, 0x06, 0x5B, 0x4F, 0x66, 0x6D, 0x7D, 0x07, 0x7F, 0x6F, 0x77,
0x7C, 0x39, 0x5E, 0x79, 0x71};
// 0,1,2,3,4,5,6,7,8,9,A,b,C,d,E,F
.var flag_disp;
//

//.SECTION/PM       pm_da;


/*** Interrupt Vector Table ***/
.SECTION/PM     interrupts;
              jump start;  rti; rti; rti;     /*00: reset */
        rti;          rti; rti; rti;     /*04: IRQ2 */
        rti;          rti; rti; rti;     /*08: IRQL1 */
        rti;          rti; rti; rti;     /*0c: IRQL0 */
        ar = dm(stat_flag);              /*10: SPORT0 tx */
        ar = pass ar;
        if eq rti;
        jump next_cmd;
        jump input_samples;              /*14: SPORT1 rx */
                      rti; rti; rti;
        jump IRQE_SCI;          rti; rti; rti;     /*18: IRQE */
        rti;          rti; rti; rti;     /*1c: BDMA */
        rti;          rti; rti; rti;     /*20: SPORT1 tx or IRQ1 */
        rti;          rti; rti; rti;     /*24: SPORT1 rx or IRQ0 */
        nop;          rti; rti; rti;     /*28: timer */
        rti;          rti; rti; rti;     /*2c: power down */



//imask = b#0001100001; /* enable rx0 interrupt*/

imask = b#0001110001;       /* enable rx0 interrupt and IRQE */

// wait states

si=0xFFFF;
dm(Dm_Wait_Reg)=si;

si=0;
dm(Prog_Flag_Comp_Sel_Ctrl)=si; // PF inputs
dm(flag_disp)=si;               // clear flag_disp


input_samples:
        ena sec_reg;                /* use shadow register bank */

        sr1 = dm (rx_buf + 2); /* get new sample from SPORT0 (from codec) */

nofilt: /*sr=ashift sr1 by -1 (hi);*/   /* save the audience's ears from damage */
        mr1=sr1;
output:
        dm (tx_buf + 1) = mr1;      /* filtered output to SPORT (to spkr) */
        dm (tx_buf + 2) = mr1;      /* filtered output to SPORT (to spkr) */
```

```
// display
              ax0=dm(flag_disp);
              ay0=0;
              ar=ax0-ay0;
              if ne jump disp_PF;
              si=IO(PORT_IN);
              IO(PORT_OUT)=si;
              rti;
disp_PF:
              ax0=dm(Prog_Flag_Data);
              ay0=0x000F;
              ar=ax0 and ay0;
              call afis_PF;
              rti;


afis_PF:
              i0=TAB_DISP;
              m0=ar;
              modify(i0,m0);
              si=dm(i0,m0);
              IO(PORT_OUT)=si;
              rts;

IRQE_SCI:
              ax0=dm(flag_disp);
              ay0=0x0001;
              ar=ax0 + ay0;
              ar= ar and ay0;
              dm(flag_disp)=ar;
              toggle fl1;
              rti;
```