```
#ifndef _32MC204REGSV1_H_
#define _32MC204REGSV1_H_
#include <stdint.h>

#define _IO volatile uint16_t

#define STATUS_BASE       0x0042
#define CORCON_BASE       0x0044
#define MODCON_BASE       0x0046
#define XMODSRT_BASE      0x0048
#define XMODEND_BASE      0x004A
#define YMODSRT_BASE      0x004C
#define YMODEND_BASE      0x004E
#define XBREV_BASE        0x0050
#define DISICNT_BASE      0x0052


#define CNEN1_BASE        0x0060
#define CNEN2_BASE        0x0062
#define CNPU1_BASE        0x0068
#define CNPU2_BASE        0x006A



#define INTCON1_BASE      0x0080
#define INTCON2_BASE      0x0082
#define IFS0_BASE         0x0084
#define IFS1_BASE         0x0086
#define IFS3_BASE         0x008A
#define IFS4_BASE         0x008C
#define IEC0_BASE         0x0094
#define IEC1_BASE         0x0096
#define IEC3_BASE         0x009A
#define IEC4_BASE         0x009C
#define IPC0_BASE         0x00A4
#define IPC1_BASE         0x00A6
#define IPC2_BASE         0x00A8
#define IPC3_BASE         0x00AA
#define IPC4_BASE         0x00AC
#define IPC5_BASE         0x00AE
#define IPC7_BASE         0x00B2
#define IPC14_BASE        0x00C0
#define IPC15_BASE        0x00C2
#define IPC16_BASE        0x00C8
#define IPC18_BASE        0x00A4
#define INTTREG_BASE      0x00E0

#define TMR1_BASE         0x0100
#define PR1_BASE          0x0102
#define T1CON_BASE        0x0104
#define TMR2_BASE         0x0106
#define TMR3HLD_BASE      0x0108
#define TMR3_BASE         0x010A
#define PR2_BASE          0x010C
#define PR3_BASE          0x010E
#define T2CON_BASE        0x0110
#define T3CON_BASE        0x0112

#define IC1BUF_BASE       0x0140
#define IC1CON_BASE       0x0142
#define IC2BUF_BASE       0x0144
#define IC2CON_BASE       0x0146
#define IC7BUF_BASE       0x0158
#define IC7CON_BASE       0x015A
#define IC8BUF_BASE       0x015C
#define IC8CON_BASE       0x015E

#define OC1RS_BASE        0x0180
#define OC1R_BASE         0x0182
#define OC1CON_BASE       0x0184
#define OC2RS_BASE        0x0186
#define OC2R_BASE         0x0188
#define OC2CON_BASE       0x018A
```

```
74
75   #define P1TCON_BASE       0x01C0
76   #define P1TMR_BASE        0x01C2
77   #define P1TPER_BASE       0x01C4
78   #define P1SECMP_BASE      0x01C6
79   #define PWM1CON1_BASE     0x01C8
80   #define PWM1CON2_BASE     0x01CA
81   #define P1DTCON1_BASE     0x01CC
82   #define P1DTCON2_BASE     0x01CE
83   #define P1FLTACON_BASE    0x01D0
84   #define P1OVDCON_BASE     0x01D4
85   #define P1DC1_BASE        0x01D6
86   #define P1DC2_BASE        0x01D8
87   #define P1DC3_BASE        0x01DA
88
89   #define P2TCON_BASE       0x05C0
90   #define P2TMR_BASE        0x05C2
91   #define P2TPER_BASE       0x05C4
92   #define P2SECMP_BASE      0x05C6
93   #define PWM2CON1_BASE     0x05C8
94   #define PWM2CON2_BASE     0x05CA
95   #define P2DTCON1_BASE     0x05CC
96   #define P2DTCON2_BASE     0x05CE
97   #define P2FLTACON_BASE    0x05D0
98   #define P2OVDCON_BASE     0x05D4
99   #define P2DC1_BASE        0x05D6
100
101  #define QEI1CON_BASE      0x01E0
102  #define DFLT1CON_BASE     0x01E2
103  #define POS1CNT_BASE      0x01E4
104  #define MAX1CNT_BASE      0x01E6
105
106  #define I2C1RCV_BASE      0x0200
107  #define I2C1TRN_BASE      0x0202
108  #define I2C1BRG_BASE      0x0204
109  #define I2C1CON_BASE      0x0206
110  #define I2C1STAT_BASE     0x0208
111  #define I2C1ADD_BASE      0x020A
112  #define I2C1MSK_BASE      0x020C
113
114  #define U1MODE_BASE      0x0220
115  #define U1STA_BASE       0x0222
116  #define U1TXREG_BASE     0x0224
117  #define U1RXREG_BASE     0x0226
118  #define U1BRG_BASE       0x0228
119
120  #define SPI1STAT_BASE    0x0240
121  #define SPI1CON1_BASE    0x0242
122  #define SPI1CON2_BASE    0x0244
123  #define SPI1BUF_BASE     0x0248
124
125  #define ADC1BUF0_BASE    0x0300
126  #define ADC1BUF1_BASE    0x0302
127  #define ADC1BUF2_BASE    0x0304
128  #define ADC1BUF3_BASE    0x0306
129  #define ADC1BUF4_BASE    0x0308
130  #define ADC1BUF5_BASE    0x030A
131  #define ADC1BUF6_BASE    0x030C
132  #define ADC1BUF7_BASE    0x030E
133  #define ADC1BUF8_BASE    0x0310
134  #define ADC1BUF9_BASE    0x0312
135  #define ADC1BUFA_BASE    0x0314
136  #define ADC1BUFB_BASE    0x0316
137  #define ADC1BUFC_BASE    0x0318
138  #define ADC1BUFD_BASE    0x031A
139  #define ADC1BUFE_BASE    0x031C
140  #define ADC1BUFF_BASE    0x031E
141  #define AD1CON1_BASE     0x0320
142  #define AD1CON2_BASE     0x0322
143  #define AD1CON3_BASE     0x0324
144  #define AD1CHS123_BASE   0x0326
145  #define AD1CHS0_BASE     0x0328
146  #define AD1PCFGL_BASE    0x032C
```

```
147  #define AD1CSSL_BASE     0x0330
148
149  #define RPINR0_BASE      0x0680
150  #define RPINR1_BASE      0x0682
151  #define RPINR3_BASE      0x0686
152  #define RPINR7_BASE      0x068E
153  #define RPINR10_BASE     0x0694
154  #define RPINR11_BASE     0x0696
155  #define RPINR12_BASE     0x0698
156  #define RPINR13_BASE     0x069A
157  #define RPINR14_BASE     0x069C
158  #define RPINR15_BASE     0x069E
159  #define RPINR18_BASE     0x06A4
160  #define RPINR20_BASE     0x06A8
161  #define RPINR21_BASE     0x06AA
162
163  #define RPOR0_BASE      0x06C0
164  #define RPOR1_BASE      0x06C2
165  #define RPOR2_BASE      0x06C4
166  #define RPOR3_BASE      0x06C6
167  #define RPOR4_BASE      0x06C8
168  #define RPOR5_BASE      0x06CA
169  #define RPOR6_BASE      0x06CC
170  #define RPOR7_BASE      0x06CE
171  #define RPOR8_BASE      0x06D0
172  #define RPOR9_BASE      0x06D2
173  #define RPOR10_BASE     0x06D4
174  #define RPOR11_BASE     0x06D6
175  #define RPOR12_BASE     0x06D8
176
177  #define TRISA_BASE      0x02C0
178  #define PORTA_BASE      0x02C2
179  #define LATA_BASE       0x02C4
180  #define ODCA_BASE       0x02C6
181
182  #define TRISB_BASE      0x02C8
183  #define PORTB_BASE      0x02CA
184  #define LATB_BASE       0x02CC
185  #define ODCB_BASE       0x02CE
186
187  #define TRISC_BASE      0x02D0
188  #define PORTC_BASE      0x02D2
189  #define LATC_BASE       0x02D4
190  #define ODCC_BASE       0x02D6
191
192  #define RCON_BASE       0x0740
193  #define OSCCON_BASE     0x0742
194  #define CLKDIV_BASE     0x0744
195  #define PLLFBD_BASE     0x0746
196  #define OSCTUN_BASE     0x0748
197
198  #define NVMCON_BASE     0x0760
199  #define NVMKEY_BASE     0x0766
200
201  #define PMD1_BASE       0x0770
202  #define PMD2_BASE       0x0772
203  #define PMD3_BASE       0x0774
204
205  /******************Strukture opisa registara*********************************/
206   typedef union {
207      struct {
208              _IO C:1;
209              _IO Z:1;
210             _IO OV:1;
211              _IO N:1;
212             _IO RA:1;
213            _IO IPL:3;
214             _IO DC:1;
215             _IO DA:1;
216            _IO SAB:1;
217            _IO OAB:1;
218             _IO SB:1;
219             _IO SA:1;
```

```
            _IO OB:1;
            _IO OA:1;
                };
    struct {
                _IO :5;
            _IO IPL0:1;
            _IO IPL1:1;
            _IO IPL2:1;
            };
}STATUSbits;

#define STATUS    ((STATUSbits*)(STATUS_BASE))
/*****************************************************************************/
typedef union {
    struct {
            _IO IFb:1;//Morao sam mu iz 'IF' promijeniti naziv u 'IFb'.
            _IO RND:1;
            _IO PSV:1;
           _IO IPL3:1;
         _IO ACCSAT:1;
          _IO SATDW:1;
           _IO SATB:1;
           _IO SATA:1;
             _IO DL:3;
            _IO EDT:1;
             _IO US:1;
            };
    struct {
               _IO :8;
            _IO DL0:1;
            _IO DL1:1;
            _IO DL2:1;
            };
}CORCONbits;

#define CORCON    ((CORCONbits*)(CORCON_BASE))
/*****************************************************************************/
typedef union {
    struct {
            _IO XWM:4;
            _IO YWM:4;
            _IO BWM:4;
               _IO :2;
         _IO YMODEN:1;
         _IO XMODEN:1;
             };
    struct {
            _IO XWM0:1;
            _IO XWM1:1;
            _IO XWM2:1;
            _IO XWM3:1;
            _IO YWM0:1;
            _IO YWM1:1;
            _IO YWM2:1;
            _IO YWM3:1;
            _IO BWM0:1;
            _IO BWM1:1;
            _IO BWM2:1;
            _IO BWM3:1;
            };
}MODCONbits;

#define MODCON    ((MODCONbits*)(MODCON_BASE))
/*****************************************************************************/
typedef union {
    struct {
             _IO XB:15;
            _IO BREN:1;
    };
    struct {
            _IO XB0:1;
            _IO XB1:1;
            _IO XB2:1;
```

```
            _IO XB3:1;
            _IO XB4:1;
            _IO XB5:1;
            _IO XB6:1;
            _IO XB7:1;
            _IO XB8:1;
            _IO XB9:1;
           _IO XB10:1;
           _IO XB11:1;
           _IO XB12:1;
           _IO XB13:1;
           _IO XB14:1;
    };
}XBREVbits;

#define XBREV    ((XBREVbits*)(XBREV_BASE))
/*****************************************************************************/
//             STRUKTURE ZA KONTROLU CHANGE NOTIFICATION MODULA:
//
/*****************************************************************************/
typedef union {
 struct{
     _IO CNEN1R:16;
         };
 struct{
       _IO CN0IE:1;
       _IO CN1IE:1;
       _IO CN2IE:1;
       _IO CN3IE:1;
       _IO CN4IE:1;
       _IO CN5IE:1;
       _IO CN6IE:1;
       _IO CN7IE:1;
       _IO CN8IE:1;
       _IO CN9IE:1;
      _IO CN10IE:1;
      _IO CN11IE:1;
      _IO CN12IE:1;
      _IO CN13IE:1;
      _IO CN14IE:1;
      _IO CN15IE:1;
         };
}CNEN1bits;

#define CNEN1    ((CNEN1bits*)(CNEN1_BASE))
/*****************************************************************************/
typedef union {
 struct {
      _IO CNEN2R:15;
         };
 struct {
       _IO CN16IE:1;
       _IO CN17IE:1;
       _IO CN18IE:1;
       _IO CN19IE:1;
       _IO CN20IE:1;
       _IO CN21IE:1;
       _IO CN22IE:1;
       _IO CN23IE:1;
       _IO CN24IE:1;
       _IO CN25IE:1;
       _IO CN26IE:1;
       _IO CN27IE:1;
       _IO CN28IE:1;
       _IO CN29IE:1;
       _IO CN30IE:1;
   };
}CNEN2bits;

#define CNEN2    ((CNEN2bits*)(CNEN2_BASE))
/*****************************************************************************/
typedef union{
struct{
```

```
366         _IO CNPU1R:16;
367           };
368   struct{
369           _IO CN0PUE:1;
370           _IO CN1PUE:1;
371           _IO CN2PUE:1;
372           _IO CN3PUE:1;
373           _IO CN4PUE:1;
374           _IO CN5PUE:1;
375           _IO CN6PUE:1;
376           _IO CN8PUE:1;
377           _IO CN9PUE:1;
378         _IO CN10PUE:1;
379         _IO CN11PUE:1;
380         _IO CN12PUE:1;
381         _IO CN13PUE:1;
382         _IO CN14PUE:1;
383         _IO CN15PUE:1;
384     };
385   }CNPU1bits;
386
387   #define CNPU1     ((CNPU1bits*)(CNPU1_BASE))
388   /*****************************************************************************/
389   typedef union {
390   struct {
391           _IO CNPU2R:15;
392             };
393   struct {
394           _IO CN16PUE:1;
395           _IO CN17PUE:1;
396           _IO CN18PUE:1;
397           _IO CN19PUE:1;
398           _IO CN20PUE:1;
399           _IO CN21PUE:1;
400           _IO CN22PUE:1;
401           _IO CN23PUE:1;
402           _IO CN24PUE:1;
403           _IO CN25PUE:1;
404           _IO CN26PUE:1;
405           _IO CN27PUE:1;
406           _IO CN28PUE:1;
407           _IO CN29PUE:1;
408           _IO CN30PUE:1;
409             };
410   }CNPU2bits;
411
412   #define CNPU2     ((CNPU2bits*)(CNPU2_BASE))
413   /*****************************************************************************/
414   //               STRUKTURE I REGISTR ZA KONTROLU I STATUS PREKIDA:
415   //
416   /*****************************************************************************/
417   typedef union{
418   struct {
419       _IO INTCON1R :16;
420             };
421   struct{
422                   _IO :1;
423           _IO OSCFAIL:1;
424            _IO STKERR:1;
425           _IO ADDRERR:1;
426           _IO MATHERR:1;
427                   _IO :1;
428           _IO DIV0ERR:1;
429         _IO SFTACERR:1;
430             _IO COVTE:1;
431             _IO OVBTE:1;
432             _IO OVATE:1;
433           _IO COVBERR:1;
434           _IO COVAERR:1;
435            _IO OVBERR:1;
436            _IO OVAERR:1;
437            _IO NSTDIS:1;
438           };
```

```
}INTCON1bits;

#define INTCON1    ((INTCON1bits*)(INTCON1_BASE))
/*****************************************************************************/
typedef union {
 struct{
          _IO INT0EP:1;
          _IO INT1EP:1;
          _IO INT2EP:1;
               _IO :11;
            _IO DISI:1;
          _IO ALTIVT:1;
  };
}INTCON2bits;

#define INTCON2    ((INTCON2bits*)(INTCON2_BASE))
/*****************************************************************************/
typedef union{
     struct{
             _IO INT0IF:1;
              _IO IC1IF:1;
              _IO OC1IF:1;
               _IO T1IF:1;
                    _IO :1;
              _IO IC2IF:1;
              _IO OC2IF:1;
               _IO T2IF:1;
               _IO T3IF:1;
            _IO SPI1EIF:1;
             _IO SPI1IF:1;
             _IO U1RXIF:1;
             _IO U1TXIF:1;
              _IO AD1IF:1;
              };
}IFS0bits;

#define IFS0    ((IFS0bits*)(IFS0_BASE))
/*****************************************************************************/
typedef  union {
    struct {
               _IO SI2C1IF:1;
               _IO MI2C1IF:1;
                      _IO :1;
                  _IO CNIF:1;
                _IO INT1IF:1;
                      _IO :1;
                 _IO IC7IF:1;
                 _IO IC8IF:1;
                      _IO :5;
                _IO INT2IF:1;
                 };
    struct {
                _IO SI2CIF:1;
            };
}IFS1bits;

#define IFS1    ((IFS1bits*)(IFS1_BASE))
/*****************************************************************************/
typedef union{
struct{
                  _IO :9;
           _IO PWM1IF:1;
            _IO QEIIF:1;
                  _IO :4;
          _IO FLTA1IF:1;
     };
}IFS3bits;

#define IFS3    ((IFS3bits*)(IFS3_BASE))
/*****************************************************************************/
typedef union{
   struct{
                   _IO :1;
```

```
512                 _IO U1EIF:1;
513                       _IO :7;
514                 _IO PWM2IF:1;
515                _IO FLTA2IF:1;
516             };
517   }IFS4bits;
518
519   #define IFS4    ((IFS4bits*)(IFS4_BASE))
520   /*****************************************************************************/
521   typedef union{
522    struct{
523             _IO INT0IE:1;
524              _IO IC1IE:1;
525              _IO OC1IE:1;
526               _IO T1IE:1;
527                   _IO :1;
528              _IO IC2IE:1;
529              _IO OC2IE:1;
530               _IO T2IE:1;
531               _IO T3IE:1;
532            _IO SPI1EIE:1;
533              _IO SPI1IE:1;
534              _IO U1RXIE:1;
535              _IO U1TXIE:1;
536               _IO AD1IE:1;
537               };
538   }IEC0bits;
539
540   #define IEC0    ((IEC0bits*)(IEC0_BASE))
541   /*****************************************************************************/
542   typedef union {
543       struct {
544              _IO SI2C1IE:1;
545              _IO MI2C1IE:1;
546                     _IO :1;
547                 _IO CNIE:1;
548                _IO INT1IE:1;
549                       _IO :1;
550                 _IO IC7IE:1;
551                 _IO IC8IE:1;
552                       _IO :5;
553                _IO INT2IE:1;
554                 };
555       struct {
556                _IO SI2CIE:1;
557               };
558   }IEC1bits;
559
560   #define IEC1    ((IEC1bits*)(IEC1_BASE))
561   /*****************************************************************************/
562   typedef union {
563        struct{
564                       _IO :9;
565              _IO PWM1IE:1;
566               _IO QEIIE:1;
567                     _IO :4;
568             _IO FLTA1IE:1;
569               };
570   }IEC3bits;
571
572   #define IEC3    ((IEC3bits*)(IEC3_BASE))
573   /*****************************************************************************/
574   typedef union{
575   struct{
576                       _IO :1;
577                _IO U1EIE:1;
578                      _IO :7;
579                _IO PWM2IE:1;
580               _IO FLTA2IE:1;
581           };
582   }IEC4bits;
583
584   #define IEC4    ((IEC4bits*)(IEC4_BASE))
```

```
/*******************************************************************************/
typedef  union {
    struct {
                    _IO INT0IP:3;
                          _IO :1;
                     _IO IC1IP:3;
                          _IO :1;
                     _IO OC1IP:3;
                          _IO :1;
                      _IO T1IP:3;
              };
    struct {
                   _IO INT0IP0:1;
                   _IO INT0IP1:1;
                   _IO INT0IP2:1;
                          _IO :1;
                    _IO IC1IP0:1;
                    _IO IC1IP1:1;
                    _IO IC1IP2:1;
                          _IO :1;
                    _IO OC1IP0:1;
                    _IO OC1IP1:1;
                    _IO OC1IP2:1;
                          _IO :1;
                     _IO T1IP0:1;
                     _IO T1IP1:1;
                     _IO T1IP2:1;
               };
}IPC0bits;

#define IPC0    ((IPC0bits*)(IPC0_BASE))
/*******************************************************************************/
typedef union {
    struct {
                        _IO :4;
                   _IO IC2IP:3;
                        _IO :1;
                   _IO OC2IP:3;
                        _IO :1;
                    _IO T2IP:3;
              };
    struct {
                        _IO :4;
                   _IO IC2IP0:1;
                   _IO IC2IP1:1;
                   _IO IC2IP2:1;
                          _IO :1;
                   _IO OC2IP0:1;
                   _IO OC2IP1:1;
                   _IO OC2IP2:1;
                          _IO :1;
                    _IO T2IP0:1;
                    _IO T2IP1:1;
                    _IO T2IP2:1;
               };
}IPC1bits;

#define IPC1    ((IPC1bits*)(IPC1_BASE))
/*******************************************************************************/
typedef union {
    struct {
                      _IO T3IP:3;
                          _IO :1;
                   _IO SPI1EIP:3;
                          _IO :1;
                    _IO SPI1IP:3;
                          _IO :1;
                    _IO U1RXIP:3;
              };
    struct {
                      _IO T3IP0:1;
                      _IO T3IP1:1;
                      _IO T3IP2:1;
```

```
                        _IO :1;
                _IO SPI1EIP0:1;
                _IO SPI1EIP1:1;
                _IO SPI1EIP2:1;
                        _IO :1;
                 _IO SPI1IP0:1;
                 _IO SPI1IP1:1;
                 _IO SPI1IP2:1;
                        _IO :1;
                 _IO U1RXIP0:1;
                 _IO U1RXIP1:1;
                 _IO U1RXIP2:1;
            };
}IPC2bits;

#define IPC2    ((IPC2bits*)(IPC2_BASE))
/*****************************************************************************/
typedef union {
    struct {
                  _IO U1TXIP:3;
                        _IO :1;
                   _IO AD1IP:3;
            };
    struct {
                 _IO U1TXIP0:1;
                 _IO U1TXIP1:1;
                 _IO U1TXIP2:1;
                        _IO :1;
                  _IO AD1IP0:1;
                  _IO AD1IP1:1;
                  _IO AD1IP2:1;
            };
}IPC3bits;

#define IPC3    ((IPC3bits*)(IPC3_BASE))
/*****************************************************************************/
typedef union {
    struct {
                 _IO SI2C1IP:3;
                        _IO :1;
                 _IO MI2C1IP:3;
                        _IO :5;
                    _IO CNIP:3;
            };
    struct {
                 _IO SI2C1IP0:1;
                 _IO SI2C1IP1:1;
                 _IO SI2C1IP2:1;
                         _IO :1;
                 _IO MI2C1IP0:1;
                 _IO MI2C1IP1:1;
                 _IO MI2C1IP2:1;
                         _IO :5;
                    _IO CNIP0:1;
                    _IO CNIP1:1;
                    _IO CNIP2:1;
            };
}IPC4bits;

#define IPC4    ((IPC4bits*)(IPC4_BASE))
/*****************************************************************************/
typedef union {
    struct {
                _IO INT1IP:3;
                      _IO :5;
                 _IO IC7IP:3;
                      _IO :1;
                 _IO IC8IP:3;
            };
    struct {
                 _IO INT1IP0:1;
                 _IO INT1IP1:1;
                 _IO INT1IP2:1;
```

```
731                         _IO :5;
732                   _IO IC7IP0:1;
733                   _IO IC7IP1:1;
734                   _IO IC7IP2:1;
735                         _IO :1;
736                   _IO IC8IP0:1;
737                   _IO IC8IP1:1;
738                   _IO IC8IP2:1;
739               };
740   }IPC5bits;
741
742   #define IPC5    ((IPC5bits*)(IPC5_BASE))
743   /*****************************************************************************/
744   typedef union {
745       struct {
746                         _IO :4;
747                 _IO INT2IP:3;
748               };
749       struct {
750                         _IO :4;
751                 _IO INT2IP0:1;
752                 _IO INT2IP1:1;
753                 _IO INT2IP2:1;
754               };
755   }IPC7bits;
756
757   #define IPC7    ((IPC7bits*)(IPC7_BASE))
758   /*****************************************************************************/
759   typedef union {
760       struct {
761                         _IO :4;
762                 _IO PWM1IP:3;
763                         _IO :1;
764                  _IO QEIIP:3;
765               };
766       struct {
767                         _IO :4;
768                 _IO PWM1IP0:1;
769                 _IO PWM1IP1:1;
770                 _IO PWM1IP2:1;
771                         _IO :1;
772                  _IO QEIIP0:1;
773                  _IO QEIIP1:1;
774                  _IO QEIIP2:1;
775               };
776   }IPC14bits;
777
778   #define IPC14    ((IPC14bits*)(IPC14_BASE))
779   /*****************************************************************************/
780   typedef union {
781       struct {
782                         _IO :12;
783                 _IO FLTA1IP:3;
784               };
785       struct {
786                         _IO :12;
787                 _IO FLTA1IP0:1;
788                 _IO FLTA1IP1:1;
789                 _IO FLTA1IP2:1;
790             };
791   }IPC15bits;
792
793   #define IPC15    ((IPC15bits*)(IPC15_BASE))
794   /*****************************************************************************/
795   typedef union {
796       struct {
797                         _IO :4;
798                 _IO U1EIP:3;
799               };
800       struct {
801                         _IO :4;
802                 _IO U1EIP0:1;
803                 _IO U1EIP1:1;
```

```
804                 _IO U1EIP2:1;
805               };
806   }IPC16bits;
807
808   #define IPC16    ((IPC16bits*)(IPC16_BASE))
809   /*****************************************************************************/
810   typedef union {
811       struct {
812                         _IO :4;
813                 _IO PWM2IP:3;
814                         _IO :1;
815                 _IO FLTA2IP:3;
816               };
817       struct {
818                         _IO :4;
819                _IO PWM2IP0:1;
820                _IO PWM2IP1:1;
821                _IO PWM2IP2:1;
822                         _IO :1;
823               _IO FLTA2IP0:1;
824               _IO FLTA2IP1:1;
825               _IO FLTA2IP2:1;
826             };
827   }IPC18bits;
828
829   #define IPC18    ((IPC18bits*)(IPC18_BASE))
830   /*****************************************************************************/
831   typedef union {
832         struct {
833                  _IO VECNUM:7;
834                         _IO :1;
835                     _IO ILR:4;
836                  };
837       struct {
838                 _IO VECNUM0:1;
839                 _IO VECNUM1:1;
840                 _IO VECNUM2:1;
841                 _IO VECNUM3:1;
842                 _IO VECNUM4:1;
843                 _IO VECNUM5:1;
844                 _IO VECNUM6:1;
845                         _IO :1;
846                    _IO ILR0:1;
847                    _IO ILR1:1;
848                    _IO ILR2:1;
849                    _IO ILR3:1;
850               };
851   }INTTREGbits;
852
853   #define INTTREG    ((INTTREGbits*)(INTTREG_BASE))
854   /*****************************************************************************/
855   //              STRUKTURE I REGISTRI ZA KONTROLU I STATUS TIMER-a:
856   //
857   /*****************************************************************************/
858   typedef union {
859       struct {
860                         _IO :1;
861                   _IO TCS:1;
862                _IO TSYNC:1;
863                         _IO :1;
864                _IO TCKPS:2;
865                _IO TGATE:1;
866                         _IO :6;
867                _IO TSIDL:1;
868                         _IO :1;
869                   _IO TON:1;
870               };
871       struct {
872                         _IO :4;
873               _IO TCKPS0:1;
874               _IO TCKPS1:1;
875                };
876   }T1CONbits;
```

```
877
878   #define T1CON    ((T1CONbits*)(T1CON_BASE))
879   /*****************************************************************************/
880   typedef union {
881       struct {
882                   _IO :1;
883              _IO TCS:1;
884                   _IO :1;
885              _IO T32:1;
886            _IO TCKPS:2;
887            _IO TGATE:1;
888                  _IO :6;
889            _IO TSIDL:1;
890                  _IO :1;
891              _IO TON:1;
892                };
893       struct {
894                   _IO :4;
895           _IO TCKPS0:1;
896           _IO TCKPS1:1;
897             };
898   }T2CONbits;
899
900   #define T2CON    ((T2CONbits*)(T2CON_BASE))
901   /*****************************************************************************/
902   typedef union {
903       struct {
904                   _IO :1;
905              _IO TCS:1;
906                   _IO :2;
907            _IO TCKPS:2;
908            _IO TGATE:1;
909                  _IO :6;
910            _IO TSIDL:1;
911                  _IO :1;
912              _IO TON:1;
913                };
914       struct {
915                   _IO :4;
916           _IO TCKPS0:1;
917           _IO TCKPS1:1;
918               };
919   }T3CONbits;
920
921   #define T3CON    ((T3CONbits*)(T3CON_BASE))
922   /*****************************************************************************/
923   typedef union
924    {
925     struct
926      {
927        _IO TMR1:16;//BUG!!!
928      };
929     }TMR1bits;
930
931   #define TMR1R   ((TMR1bits*)(TMR1_BASE))
932   /*****************************************************************************/
933   typedef union
934    {
935     struct
936      {
937        _IO PR1:16;//BUG!!!
938      };
939     }PR1bits;
940
941   #define PR1R   ((PR1bits*)(PR1_BASE))
942   /*****************************************************************************/
943   typedef union
944    {
945     struct
946      {
947        _IO TMR2:16;//BUG!!!
948      };
949     }TMR2bits;
```

```
950
951   #define TMR2R    ((TMR2bits*)(TMR2_BASE))
952   /*****************************************************************************/
953   typedef union
954    {
955     struct
956      {
957        _IO PR2:16;//BUG!!!
958       };
959     }PR2bits;
960
961   #define PR2R    ((PR2bits*)(PR2_BASE))
962   /*****************************************************************************/
963   typedef union
964    {
965     struct
966      {
967        _IO TMR3:16;//BUG!!!
968       };
969     }TMR3bits;
970
971   #define TMR3R    ((TMR3bits*)(TMR3_BASE))
972   /*****************************************************************************/
973   typedef union
974    {
975     struct
976      {
977        _IO PR3:16;//BUG!!!
978       };
979     }PR3bits;
980
981   #define PR3R    ((PR3bits*)(PR3_BASE))
982   /*****************************************************************************/
983   typedef union
984    {
985     struct
986      {
987        _IO TMR3HLD:16;//BUG!!!
988       };
989     }TMR3HLDbits;
990
991   #define TMR3HLDR    ((TMR3HLDbits*)(TMR3HLD_BASE))
992   /*****************************************************************************/
993   //               STRUKTURE I REGISTRI ZA INPUT CAPTURE MODULA:
994   //
995   /*****************************************************************************/
996   typedef union
997    {
998     struct
999      {
1000       _IO IC1BUF:16;//BUG!!!
1001      };
1002    }IC1BUFbits;
1003
1004  #define IC1BUFR    ((IC1BUFbits*)(IC1BUF_BASE))
1005  /*****************************************************************************/
1006  typedef union {
1007      struct {
1008                _IO ICM:3;
1009              _IO ICBNE:1;
1010               _IO ICOV:1;
1011                _IO ICI:2;
1012              _IO ICTMR:1;
1013                    _IO :5;
1014             _IO ICSIDL:1;
1015               };
1016      struct {
1017              _IO ICM0:1;
1018              _IO ICM1:1;
1019              _IO ICM2:1;
1020                   _IO :2;
1021              _IO ICI0:1;
1022              _IO ICI1:1;
```

```
            };
}IC1CONbits;

#define IC1CON   ((IC1CONbits*)(IC1CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO IC2BUF:16;//BUG!!!
    };
  }IC2BUFbits;

#define IC2BUFR   ((IC2BUFbits*)(IC2BUF_BASE))
/*****************************************************************************/
typedef union {
    struct {
              _IO ICM:3;
            _IO ICBNE:1;
             _IO ICOV:1;
              _IO ICI:2;
            _IO ICTMR:1;
                 _IO :5;
           _IO ICSIDL:1;
             };
    struct {
            _IO ICM0:1;
            _IO ICM1:1;
            _IO ICM2:1;
                _IO :2;
            _IO ICI0:1;
            _IO ICI1:1;
            };
}IC2CONbits;

#define IC2CON   ((IC2CONbits*)(IC2CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO IC7BUF:16;//BUG!!!
    };
  }IC7BUFbits;

#define IC7BUFR   ((IC7BUFbits*)(IC7BUF_BASE))
/*****************************************************************************/
typedef union {
    struct {
              _IO ICM:3;
            _IO ICBNE:1;
             _IO ICOV:1;
              _IO ICI:2;
            _IO ICTMR:1;
                 _IO :5;
           _IO ICSIDL:1;
             };
    struct {
            _IO ICM0:1;
            _IO ICM1:1;
            _IO ICM2:1;
                _IO :2;
            _IO ICI0:1;
            _IO ICI1:1;
            };
}IC7CONbits;

#define IC7CON   ((IC7CONbits*)(IC7CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
```

```
      _IO IC8BUF:16;//BUG!!!
    };
  }IC8BUFbits;

#define IC8BUFR   ((IC8BUFbits*)(IC8BUF_BASE))
/*****************************************************************************/
typedef union {
    struct {
              _IO ICM:3;
            _IO ICBNE:1;
             _IO ICOV:1;
              _IO ICI:2;
            _IO ICTMR:1;
                 _IO :5;
           _IO ICSIDL:1;
         };
    struct {
            _IO ICM0:1;
            _IO ICM1:1;
            _IO ICM2:1;
                _IO :2;
            _IO ICI0:1;
            _IO ICI1:1;
             };
}IC8CONbits;

#define IC8CON   ((IC8CONbits*)(IC8CON_BASE))
/*****************************************************************************/
//              STRUKTURE I REGISTRI ZA OUTPUT COMPARE MODUL:
//
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO OC1RS:16;//BUG!!!
   };
  }OC1RSbits;

#define OC1RSR   ((OC1RSbits*)(OC1RS_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO OC1R:16;//BUG!!!
   };
  }OC1Rbits;

#define OC1RR   ((OC1Rbits*)(OC1R_BASE))
/*****************************************************************************/
typedef union {
    struct {
               _IO OCM:3;
            _IO OCTSEL:1;
             _IO OCFLT:1;
                  _IO :8;
            _IO OCSIDL:1;
             };
    struct {
              _IO OCM0:1;
              _IO OCM1:1;
              _IO OCM2:1;
            };
}OC1CONbits;

#define OC1CON   ((OC1CONbits*)(OC1CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO OC2RS:16;//BUG!!!
```

```
    };
  }OC2RSbits;

#define OC2RSR   ((OC2RSbits*)(OC2RS_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO OC2R:16;//BUG!!!
   };
  }OC2Rbits;

#define OC2RR   ((OC2Rbits*)(OC2R_BASE))
/*****************************************************************************/
typedef union {
    struct {
              _IO OCM:3;
          _IO OCTSEL:1;
           _IO OCFLT:1;
                _IO :8;
          _IO OCSIDL:1;
            };
    struct {
           _IO OCM0:1;
           _IO OCM1:1;
           _IO OCM2:1;
            };
}OC2CONbits;

#define OC2CON   ((OC2CONbits*)(OC2CON_BASE))
/*****************************************************************************/
//              6-IZLAZNI MOTOR CONTROL PWM MODUL:(13 registara)
//                  Jos ukupno 111 registara za definisati
/*****************************************************************************/
typedef union {
    struct {
             _IO PTMOD:2;
           _IO PTCKPS:2;
            _IO PTOPS:4;
                 _IO :5;
           _IO PTSIDL:1;
                 _IO :1;
             _IO PTEN:1;
            };
    struct {
           _IO PTMOD0:1;
           _IO PTMOD1:1;
          _IO PTCKPS0:1;
          _IO PTCKPS1:1;
           _IO PTOPS0:1;
           _IO PTOPS1:1;
           _IO PTOPS2:1;
           _IO PTOPS3:1;
            };
}P1TCONbits;

#define P1TCON   ((P1TCONbits*)(P1TCON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO PTMR:15;//BUG!!!
     _IO PTDIR:1;
    };
  }P1TMRbits;

#define P1TMR   ((P1TMRbits*)(P1TMR_BASE))
/*****************************************************************************/
typedef union
 {
  struct
```

```
1242      {
1243        _IO PTPER:15;//BUG!!!
1244       };
1245     }P1TPERbits;
1246
1247   #define P1TPER    ((P1TPERbits*)(P1TPER_BASE))
1248   /*****************************************************************************/
1249   typedef union{
1250    struct{
1251         _IO SEVTCMP:15;
1252          _IO SEVTDIR:1;
1253          };
1254   }P1SECMPbits;
1255
1256   #define P1SECMP    ((P1SECMPbits*)(P1SECMP_BASE))
1257   /*****************************************************************************/
1258   typedef union{
1259    struct{
1260           _IO PENL:3;
1261           _IO :1;
1262           _IO PENH:3;
1263           _IO :1;
1264           _IO PMOD:3;
1265           };
1266    struct{
1267          _IO PEN1L:1;
1268          _IO PEN2L:1;
1269          _IO PEN3L:1;
1270                _IO :1;
1271          _IO PEN1H:1;
1272          _IO PEN2H:1;
1273          _IO PEN3H:1;
1274                _IO :1;
1275          _IO PMOD1:1;
1276          _IO PMOD2:1;
1277          _IO PMOD3:1;
1278          };
1279   }PWM1CON1bits;
1280
1281   #define PWM1CON1    ((PWM1CON1bits*)(PWM1CON1_BASE))
1282   /*****************************************************************************/
1283
1284   typedef union {
1285       struct {
1286                _IO UDIS:1;
1287              _IO OSYNC:1;
1288                _IO IUE:1;
1289                    _IO :5;
1290             _IO SEVOPS:4;
1291              };
1292       struct {
1293                      _IO :8;
1294              _IO SEVOPS0:1;
1295              _IO SEVOPS1:1;
1296              _IO SEVOPS2:1;
1297              _IO SEVOPS3:1;
1298              };
1299   }PWM1CON2bits;
1300
1301   #define PWM1CON2    ((PWM1CON2bits*)(PWM1CON2_BASE))
1302   /*****************************************************************************/
1303   typedef union {
1304       struct {
1305                _IO DTA:6;
1306              _IO DTAPS:2;
1307                _IO DTB:6;
1308              _IO DTBPS:2;
1309              };
1310       struct {
1311              _IO DTA0:1;
1312              _IO DTA1:1;
1313              _IO DTA2:1;
1314              _IO DTA3:1;
```

```
            _IO DTA4:1;
            _IO DTA5:1;
          _IO DTAPS0:1;
          _IO DTAPS1:1;
            _IO DTB0:1;
            _IO DTB1:1;
            _IO DTB2:1;
            _IO DTB3:1;
            _IO DTB4:1;
            _IO DTB5:1;
          _IO DTBPS0:1;
          _IO DTBPS1:1;
              };
}P1DTCON1bits;

#define P1DTCON1   ((P1DTCON1bits*)(P1DTCON1_BASE))
/*****************************************************************************/
typedef union{
 struct{
        _IO DTS1I:1;
        _IO DTS1A:1;
        _IO DTS2I:1;
        _IO DTS2A:1;
        _IO DTS3I:1;
        _IO DTS3A:1;
          };
}P1DTCON2bits;

#define P1DTCON2   ((P1DTCON2bits*)(P1DTCON2_BASE))
/*****************************************************************************/
typedef union{
struct{
        _IO FAEN1:1;
        _IO FAEN2:1;
        _IO FAEN3:1;
             _IO :4;
        _IO FLTAM:1;
       _IO FAOV1L:1;
       _IO FAOV1H:1;
       _IO FAOV2L:1;
       _IO FAOV2H:1;
       _IO FAOV3L:1;
       _IO FAOV3H:1;
          };
}P1FLTACONbits;

#define P1FLTACON   ((P1FLTACONbits*)(P1FLTACON_BASE))
/*****************************************************************************/
typedef union{
struct{
         _IO POUT:6;
             _IO :2;
         _IO POVD:6;
       };
struct{
        _IO POUT1L:1;
        _IO POUT1H:1;
        _IO POUT2L:1;
        _IO POUT2H:1;
        _IO POUT3L:1;
        _IO POUT3H:1;
              _IO :2;
        _IO POVD1L:1;
        _IO POVD1H:1;
        _IO POVD2L:1;
        _IO POVD2H:1;
        _IO POVD3L:1;
        _IO POVD3H:1;
       };
}P1OVDCONbits;

#define P1OVDCON   ((P1OVDCONbits*)(P1OVDCON_BASE))
/*****************************************************************************/
```

```
1388  typedef union
1389   {
1390    struct
1391     {
1392       _IO PDC:16;//BUG!!!
1393      };
1394    }P1DC1bits;
1395
1396  #define P1DC1    ((P1DC1bits*)(P1DC1_BASE))
1397  /*****************************************************************************/
1398  typedef union
1399   {
1400    struct
1401     {
1402       _IO PDC:16;//BUG!!!
1403      };
1404    }P1DC2bits;
1405
1406  #define P1DC2    ((P1DC2bits*)(P1DC2_BASE))
1407  /*****************************************************************************/
1408  typedef union
1409   {
1410    struct
1411     {
1412       _IO PDC:16;//BUG!!!
1413      };
1414    }P1DC3bits;
1415
1416  #define P1DC3    ((P1DC3bits*)(P1DC3_BASE))
1417  /*****************************************************************************/
1418  //              2-IZLAZNI MOTOR CONTROL PWM MODUL:(11 registara)
1419  //
1420  /*****************************************************************************/
1421  typedef union {
1422      struct {
1423               _IO PTMOD:2;
1424              _IO PTCKPS:2;
1425               _IO PTOPS:4;
1426                     _IO :5;
1427              _IO PTSIDL:1;
1428                     _IO :1;
1429                _IO PTEN:1;
1430               };
1431      struct {
1432              _IO PTMOD0:1;
1433              _IO PTMOD1:1;
1434             _IO PTCKPS0:1;
1435             _IO PTCKPS1:1;
1436              _IO PTOPS0:1;
1437              _IO PTOPS1:1;
1438              _IO PTOPS2:1;
1439              _IO PTOPS3:1;
1440              };
1441  }P2TCONbits;
1442
1443  #define P2TCON    ((P2TCONbits*)(P2TCON_BASE))
1444  /*****************************************************************************/
1445  typedef union{
1446   struct{
1447         _IO PTMR:15;
1448         _IO PTDIR:1;
1449          };
1450  }P2TMRbits;
1451
1452  #define P2TMRR    ((P2TMRbits*)(P2TMR_BASE))
1453  /*****************************************************************************/
1454  typedef union{
1455   struct{
1456        _IO PTPER:15;
1457         };
1458  }P2TPERbits;
1459
1460  #define P2TPERR    ((P2TPERbits*)(P2TPER_BASE))
```

```
/*****************************************************************************/
typedef union{
 struct{
      _IO SEVTCMP:15;
       _IO SEVTDIR:1;
        };
}P2SECMPbits;

#define P2SECMP   ((P2SECMPbits*)(P2SECMP_BASE))
/*****************************************************************************/
typedef union{
 struct{
       _IO PEN1L:1;
            _IO :3;
       _IO PEN1H:1;
            _IO :3;
       _IO PMOD1:1;
       };
}PWM2CON1bits;

#define PWM2CON1   ((PWM2CON1bits*)(PWM2CON1_BASE))
/*****************************************************************************/
typedef union {
    struct {
             _IO UDIS:1;
           _IO OSYNC:1;
             _IO IUE:1;
                _IO :5;
         _IO SEVOPS:4;
          };
    struct {
                   _IO :8;
           _IO SEVOPS0:1;
           _IO SEVOPS1:1;
           _IO SEVOPS2:1;
           _IO SEVOPS3:1;
          };
}PWM2CON2bits;

#define PWM2CON2   ((PWM2CON2bits*)(PWM2CON2_BASE))
/*****************************************************************************/
typedef union {
    struct {
              _IO DTA:6;
           _IO DTAPS:2;
             _IO DTB:6;
           _IO DTBPS:2;
          };
    struct {
           _IO DTA0:1;
           _IO DTA1:1;
           _IO DTA2:1;
           _IO DTA3:1;
           _IO DTA4:1;
           _IO DTA5:1;
         _IO DTAPS0:1;
         _IO DTAPS1:1;
           _IO DTB0:1;
           _IO DTB1:1;
           _IO DTB2:1;
           _IO DTB3:1;
           _IO DTB4:1;
           _IO DTB5:1;
         _IO DTBPS0:1;
         _IO DTBPS1:1;
             };
}P2DTCON1bits;

#define P2DTCON1   ((P2DTCON1bits*)(P2DTCON1_BASE))
/*****************************************************************************/
typedef union{
 struct{
       _IO DTS1I:1;
```

```
1534          _IO DTS1A:1;
1535           };
1536    }P2DTCON2bits;
1537
1538    #define P2DTCON2   ((P2DTCON2bits*)(P2DTCON2_BASE))
1539    /*****************************************************************************/
1540    typedef union{
1541     struct{
1542           _IO FAEN1:1;
1543                _IO :6;
1544           _IO FLTAM:1;
1545          _IO FAOV1L:1;
1546          _IO FAOV1H:1;
1547           };
1548    }P2FLTACONbits;
1549
1550    #define P2FLTACON   ((P2FLTACONbits*)(P2FLTACON_BASE))
1551    /*****************************************************************************/
1552    typedef union{
1553     struct{
1554           _IO POUT:2;
1555                _IO :6;
1556           _IO POVD:2;
1557            };
1558     struct{
1559           _IO POUT1L:1;
1560           _IO POUT1H:1;
1561                 _IO :6;
1562           _IO POVD1L:1;
1563           _IO POVD1H:1;
1564           };
1565    }P2OVDCONbits;
1566
1567    #define P2OVDCON   ((P2OVDCONbits*)(P2OVDCON_BASE))
1568    /*****************************************************************************/
1569    typedef union
1570     {
1571      struct
1572       {
1573         _IO P2DC1:16;//BUG!!!
1574       };
1575      }P2DC1bits;
1576
1577    #define P2DC1R   ((P2DC1bits*)(P2DC1_BASE))
1578    /*****************************************************************************/
1579    //             MOTION FEEDBACK MODUL (KVADRATURNI ENKODER):(4 registra)
1580    //
1581    /*****************************************************************************/
1582    typedef  union {
1583        struct {
1584              _IO UPDN_SRC:1;
1585                   _IO TQCS:1;
1586                 _IO POSRES:1;
1587                 _IO TQCKPS:2;
1588                 _IO TQGATE:1;
1589                 _IO PCDOUT:1;
1590                  _IO SWPAB:1;
1591                   _IO QEIM:3;
1592                   _IO UPDN:1;
1593                   _IO INDX:1;
1594                _IO QEISIDL:1;
1595                        _IO :1;
1596                 _IO CNTERR:1;
1597                 };
1598        struct {
1599                        _IO :3;
1600              _IO TQCKPS0:1;
1601              _IO TQCKPS1:1;
1602                        _IO :3;
1603                 _IO QEIM0:1;
1604                 _IO QEIM1:1;
1605                 _IO QEIM2:1;
1606                 };
```

```
}QEI1CONbits;

#define QEI1CON   ((QEI1CONbits*)(QEI1CON_BASE))
/*****************************************************************************/
typedef union {
    struct {
                _IO :4;
           _IO QECK:3;
          _IO QEOUT:1;
           _IO CEID:1;
            _IO IMV:2;
             };
    struct {
                _IO :4;
          _IO QECK0:1;
          _IO QECK1:1;
          _IO QECK2:1;
                _IO :2;
           _IO IMV0:1;
           _IO IMV1:1;
             };
}DFLT1CONbits;

#define DFLT1CON   ((DFLT1CONbits*)(DFLT1CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO POS1CNT:16;//BUG!!!
   };
  }POS1CNTbits;

#define POS1CNTR   ((POS1CNTbits*)(POS1CNT_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO MAX1CNT:16;//BUG!!!
   };
  }MAX1CNTbits;

#define MAX1CNTR   ((MAX1CNTbits*)(MAX1CNT_BASE))
/*****************************************************************************/
//                      I2C1 MODUL (2-ZICANI SERIJSKI INTERFEJS):(7 registara)
//
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO I2C1RCV:8;//BUG!!!
   };
  }I2C1RCVbits;

#define I2C1RCVR   ((I2C1RCVbits*)(I2C1RCV_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO I2C1TRN:8;//BUG!!!
   };
  }I2C1TRNbits;

#define I2C1TRNR   ((I2C1TRNbits*)(I2C1TRN_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO I2C1BRG:9;//BUG!!!
```

```
1680        };
1681      }I2C1BRGbits;
1682
1683    #define I2C1BRGR   ((I2C1BRGbits*)(I2C1BRG_BASE))
1684    /*****************************************************************************/
1685    typedef union{
1686     struct{
1687            _IO SEN:1;
1688           _IO RSEN:1;
1689            _IO PEN:1;
1690           _IO RCEN:1;
1691          _IO ACKEN:1;
1692          _IO ACKDT:1;
1693          _IO STREN:1;
1694           _IO GCEN:1;
1695           _IO SMEN:1;
1696         _IO DISSLW:1;
1697           _IO A10M:1;
1698         _IO IPMIEN:1;
1699         _IO SCLREL:1;
1700        _IO I2CSIDL:1;
1701                _IO :1;
1702          _IO I2CEN:1;
1703             };
1704    }I2C1CONbits;
1705
1706    #define I2C1CON   ((I2C1CONbits*)(I2C1CON_BASE))
1707    /*****************************************************************************/
1708    typedef union{
1709     struct{
1710           _IO TBF:1;
1711           _IO RBF:1;
1712           _IO R_W:1;
1713             _IO S:1;
1714             _IO P:1;
1715           _IO D_A:1;
1716         _IO I2COV:1;
1717         _IO IWCOL:1;
1718         _IO ADD10:1;
1719        _IO GCSTAT:1;
1720           _IO BCL:1;
1721              _IO :3;
1722        _IO TRSTAT:1;
1723       _IO ACKSTAT:1;
1724           };
1725    }I2C1STATbits;
1726
1727    #define I2C1STAT   ((I2C1STATbits*)(I2C1STAT_BASE))
1728    /*****************************************************************************/
1729    typedef union
1730     {
1731      struct
1732       {
1733         _IO I2C1ADD:10;//BUG!!!
1734       };
1735      }I2C1ADDbits;
1736
1737    #define I2C1ADDR   ((I2C1ADDbits*)(I2C1ADD_BASE))
1738    /*****************************************************************************/
1739    typedef union
1740     {
1741      struct
1742       {
1743         _IO I2C1MSK:10;//BUG!!!
1744       };
1745      }I2C1MSKbits;
1746
1747    #define I2C1MSKR   ((I2C1MSKbits*)(I2C1MSK_BASE))
1748    /*****************************************************************************/
1749    //                      USART1 MODUL (SERIJSKI INTERFEJS):(5 registara)
1750    //
1751    /*****************************************************************************/
1752    typedef union {
```

```
1753        struct {
1754                _IO STSEL:1;
1755                _IO PDSEL:2;
1756                 _IO BRGH:1;
1757               _IO URXINV:1;
1758                _IO ABAUD:1;
1759               _IO LPBACK:1;
1760                  _IO WAKE:1;
1761                   _IO UEN:2;
1762                       _IO :1;
1763                _IO RTSMD:1;
1764                 _IO IREN:1;
1765                _IO USIDL:1;
1766                     _IO :1;
1767               _IO UARTEN:1;
1768                    };
1769        struct {
1770                          _IO :1;
1771                _IO PDSEL0:1;
1772                _IO PDSEL1:1;
1773                       _IO :5;
1774                  _IO UEN0:1;
1775                  _IO UEN1:1;
1776                 };
1777    }U1MODEbits;
1778
1779    #define U1MODE   ((U1MODEbits*)(U1MODE_BASE))
1780    /*****************************************************************************/
1781    typedef union {
1782        struct {
1783               _IO URXDA:1;
1784                _IO OERR:1;
1785                _IO FERR:1;
1786                _IO PERR:1;
1787               _IO RIDLE:1;
1788               _IO ADDEN:1;
1789             _IO URXISEL:2;
1790                _IO TRMT:1;
1791               _IO UTXBF:1;
1792               _IO UTXEN:1;
1793              _IO UTXBRK:1;
1794                     _IO :1;
1795            _IO UTXISEL0:1;
1796              _IO UTXINV:1;
1797            _IO UTXISEL1:1;
1798                   };
1799        struct {
1800                         _IO :6;
1801                _IO URXISEL0:1;
1802                _IO URXISEL1:1;
1803                 };
1804    }U1STAbits;
1805
1806    #define U1STA   ((U1STAbits*)(U1STA_BASE))
1807    /*****************************************************************************/
1808    typedef union
1809     {
1810      struct
1811       {
1812         _IO U1TXREG:9;//BUG!!!
1813       };
1814       struct
1815        {
1816          _IO UTXREG0:1;
1817          _IO UTXREG1:1;
1818          _IO UTXREG2:1;
1819          _IO UTXREG3:1;
1820          _IO UTXREG4:1;
1821          _IO UTXREG5:1;
1822          _IO UTXREG6:1;
1823          _IO UTXREG7:1;
1824          _IO UTXREG8:1;
1825        };
```

```
  }U1TXREGbits;

#define U1TXREGR   ((U1TXREGbits*)(U1TXREG_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO U1RXREG:9;//BUG!!!
    };
  struct
   {
    _IO URXREG0:1;
    _IO URXREG1:1;
    _IO URXREG2:1;
    _IO URXREG3:1;
    _IO URXREG4:1;
    _IO URXREG5:1;
    _IO URXREG6:1;
    _IO URXREG7:1;
    _IO URXREG8:1;
    };
  }U1RXREGbits;

#define U1RXREGR   ((U1RXREGbits*)(U1RXREG_BASE))
/*****************************************************************************/
//                      SPI1 MODUL (SERIJSKI INTERFEJS):(4 registra)
//
/*****************************************************************************/
typedef union{
  struct{
        _IO SPIRBF:1;
        _IO SPITBF:1;
              _IO :4;
        _IO SPIROV:1;
              _IO :6;
       _IO SPISIDL:1;
              _IO :1;
         _IO SPIEN:1;
        };
}SPI1STATbits;

#define SPI1STAT   ((SPI1STATbits*)(SPI1STAT_BASE))
/*****************************************************************************/
typedef union {
    struct {
            _IO PPRE:2;
            _IO SPRE:3;
           _IO MSTEN:1;
             _IO CKP:1;
            _IO SSEN:1;
             _IO CKE:1;
             _IO SMP:1;
          _IO MODE16:1;
          _IO DISSDO:1;
          _IO DISSCK:1;
           };
    struct {
            _IO PPRE0:1;
            _IO PPRE1:1;
            _IO SPRE0:1;
            _IO SPRE1:1;
            _IO SPRE2:1;
             };
}SPI1CON1bits;

#define SPI1CON1   ((SPI1CON1bits*)(SPI1CON1_BASE))
/*****************************************************************************/
typedef union{
 struct{
              _IO :1;
        _IO FRMDLY:1;
             _IO :11;
```

```
1899            _IO FRMPOL:1;
1900            _IO SPIFSD:1;
1901             _IO FRMEN:1;
1902            };
1903    }SPI1CON2bits;
1904
1905    #define SPI1CON2    ((SPI1CON2bits*)(SPI1CON2_BASE))
1906    /*****************************************************************************/
1907    typedef union
1908     {
1909      struct
1910       {
1911         _IO SPI1BUF:16;//BUG!!!
1912        };
1913      }SPI1BUFbits;
1914
1915    #define SPI1BUFR    ((SPI1BUFbits*)(SPI1BUF_BASE))
1916    /*****************************************************************************/
1917    //                                  ADC1 MODUL:
1918    //                    (MODUL ANALOGNO-DIGITALNOG PRETVARACA)
1919    /*****************************************************************************/
1920    typedef union
1921     {
1922      struct
1923       {
1924         _IO ADCBUF:16;//BUG!!!
1925        };
1926      }ADC1BUF0bits;
1927
1928    #define ADC1BUF0    ((ADC1BUF0bits*)(ADC1BUF0_BASE))
1929    /*****************************************************************************/
1930    typedef union
1931     {
1932      struct
1933       {
1934         _IO ADCBUF:16;//BUG!!!
1935        };
1936      }ADC1BUF1bits;
1937
1938    #define ADC1BUF1    ((ADC1BUF1bits*)(ADC1BUF1_BASE))
1939    /*****************************************************************************/
1940    typedef union
1941     {
1942      struct
1943       {
1944         _IO ADCBUF:16;//BUG!!!
1945        };
1946      }ADC1BUF2bits;
1947
1948    #define ADC1BUF2    ((ADC1BUF2bits*)(ADC1BUF2_BASE))
1949    /*****************************************************************************/
1950    typedef union
1951     {
1952      struct
1953       {
1954         _IO ADCBUF:16;//BUG!!!
1955        };
1956      }ADC1BUF3bits;
1957
1958    #define ADC1BUF3    ((ADC1BUF3bits*)(ADC1BUF3_BASE))
1959    /*****************************************************************************/
1960    typedef union
1961     {
1962      struct
1963       {
1964         _IO ADCBUF:16;//BUG!!!
1965        };
1966      }ADC1BUF4bits;
1967
1968    #define ADC1BUF4    ((ADC1BUF4bits*)(ADC1BUF4_BASE))
1969    /*****************************************************************************/
1970    typedef union
1971     {
```

```
1972      struct
1973       {
1974         _IO ADCBUF:16;//BUG!!!
1975        };
1976      }ADC1BUF5bits;
1977
1978    #define ADC1BUF5    ((ADC1BUF5bits*)(ADC1BUF5_BASE))
1979    /*****************************************************************************/
1980    typedef union
1981     {
1982      struct
1983       {
1984         _IO ADCBUF:16;//BUG!!!
1985        };
1986      }ADC1BUF6bits;
1987
1988    #define ADC1BUF6    ((ADC1BUF6bits*)(ADC1BUF6_BASE))
1989    /*****************************************************************************/
1990    typedef union
1991     {
1992      struct
1993       {
1994         _IO ADCBUF:16;//BUG!!!
1995        };
1996      }ADC1BUF7bits;
1997
1998    #define ADC1BUF7    ((ADC1BUF7bits*)(ADC1BUF7_BASE))
1999    /*****************************************************************************/
2000    typedef union
2001     {
2002      struct
2003       {
2004         _IO ADCBUF:16;//BUG!!!
2005        };
2006      }ADC1BUF8bits;
2007
2008    #define ADC1BUF8    ((ADC1BUF8bits*)(ADC1BUF8_BASE))
2009    /*****************************************************************************/
2010    typedef union
2011     {
2012      struct
2013       {
2014         _IO ADCBUF:16;//BUG!!!
2015        };
2016      }ADC1BUF9bits;
2017
2018    #define ADC1BUF9    ((ADC1BUF9bits*)(ADC1BUF9_BASE))
2019    /*****************************************************************************/
2020    typedef union
2021     {
2022      struct
2023       {
2024         _IO ADCBUF:16;//BUG!!!
2025        };
2026      }ADC1BUFAbits;
2027
2028    #define ADC1BUFA    ((ADC1BUFAbits*)(ADC1BUFA_BASE))
2029    /*****************************************************************************/
2030    typedef union
2031     {
2032      struct
2033       {
2034         _IO ADCBUF:16;//BUG!!!
2035        };
2036      }ADC1BUFBbits;
2037
2038    #define ADC1BUFBR    ((ADC1BUFBbits*)(ADC1BUFB_BASE))
2039    /*****************************************************************************/
2040    typedef union
2041     {
2042      struct
2043       {
2044         _IO ADCBUF:16;//BUG!!!
```

```
2045      };
2046    }ADC1BUFCbits;
2047
2048    #define ADC1BUFC   ((ADC1BUFCbits*)(ADC1BUFC_BASE))
2049    /*****************************************************************************/
2050    typedef union
2051     {
2052      struct
2053       {
2054         _IO ADCBUF:16;//BUG!!!
2055       };
2056    }ADC1BUFDbits;
2057
2058    #define ADC1BUFD   ((ADC1BUFDbits*)(ADC1BUFD_BASE))
2059    /*****************************************************************************/
2060    typedef union
2061     {
2062      struct
2063       {
2064         _IO ADCBUF:16;//BUG!!!
2065       };
2066    }ADC1BUFEbits;
2067
2068    #define ADC1BUFE   ((ADC1BUFEbits*)(ADC1BUFE_BASE))
2069    /*****************************************************************************/
2070    typedef union
2071     {
2072      struct
2073       {
2074         _IO ADCBUF:16;//BUG!!!
2075       };
2076    }ADC1BUFFbits;
2077
2078    #define ADC1BUFF   ((ADC1BUFFbits*)(ADC1BUFF_BASE))
2079    /*****************************************************************************/
2080    typedef union {
2081        struct{
2082                _IO ADCON1:16;//Zbog brze inicijalizacije periferala.
2083                 };
2084        struct {
2085                _IO DONE:1;
2086                _IO SAMP:1;
2087                _IO ASAM:1;
2088              _IO SIMSAM:1;
2089                     _IO :1;
2090                _IO SSRC:3;
2091                _IO FORM:2;
2092               _IO AD12B:1;
2093                     _IO :2;
2094              _IO ADSIDL:1;
2095                     _IO :1;
2096                _IO ADON:1;
2097               };
2098        struct {
2099                       _IO :5;
2100                _IO SSRC0:1;
2101                _IO SSRC1:1;
2102                _IO SSRC2:1;
2103                _IO FORM0:1;
2104                _IO FORM1:1;
2105                 };
2106    }AD1CON1bits;
2107
2108    #define AD1CON1   ((AD1CON1bits*)(AD1CON1_BASE))
2109    /*****************************************************************************/
2110    typedef union {
2111        struct{
2112                _IO ADCON2:16;//Zbog brze inicijalizacije periferala.
2113                 };
2114        struct {
2115                _IO ALTS:1;
2116                _IO BUFM:1;
2117                _IO SMPI:4;
```

```
2118                 _IO :1;
2119             _IO BUFS:1;
2120             _IO CHPS:2;
2121            _IO CSCNA:1;
2122                 _IO :2;
2123             _IO VCFG:3;
2124               };
2125     struct {
2126                  _IO :2;
2127             _IO SMPI0:1;
2128             _IO SMPI1:1;
2129             _IO SMPI2:1;
2130             _IO SMPI3:1;
2131                  _IO :2;
2132             _IO CHPS0:1;
2133             _IO CHPS1:1;
2134                  _IO :3;
2135             _IO VCFG0:1;
2136             _IO VCFG1:1;
2137             _IO VCFG2:1;
2138               };
2139 }AD1CON2bits;
2140
2141 #define AD1CON2   ((AD1CON2bits*)(AD1CON2_BASE))
2142 /*****************************************************************************/
2143 typedef union {
2144     struct{
2145             _IO ADCON3:16;//Zbog brze inicijalizacije periferala.
2146              };
2147     struct {
2148             _IO ADCS:8;
2149             _IO SAMC:5;
2150                 _IO :2;
2151             _IO ADRC:1;
2152              };
2153     struct {
2154             _IO ADCS0:1;
2155             _IO ADCS1:1;
2156             _IO ADCS2:1;
2157             _IO ADCS3:1;
2158             _IO ADCS4:1;
2159             _IO ADCS5:1;
2160             _IO ADCS6:1;
2161             _IO ADCS7:1;
2162             _IO SAMC0:1;
2163             _IO SAMC1:1;
2164             _IO SAMC2:1;
2165             _IO SAMC3:1;
2166             _IO SAMC4:1;
2167               };
2168 }AD1CON3bits;
2169
2170 #define AD1CON3   ((AD1CON3bits*)(AD1CON3_BASE))
2171 /*****************************************************************************/
2172 typedef union {
2173     struct {
2174             _IO CH123SA:1;
2175             _IO CH123NA:2;
2176                    _IO :5;
2177             _IO CH123SB:1;
2178             _IO CH123NB:2;
2179               };
2180     struct {
2181                    _IO :1;
2182             _IO CH123NA0:1;
2183             _IO CH123NA1:1;
2184                    _IO :6;
2185             _IO CH123NB0:1;
2186             _IO CH123NB1:1;
2187              };
2188 }AD1CHS123bits;
2189
2190 #define AD1CHS123   ((AD1CHS123bits*)(AD1CHS123_BASE))
```

```
/*****************************************************************************/
typedef union {
    struct {
            _IO CH0SA:5;
                 _IO :2;
            _IO CH0NA:1;
            _IO CH0SB:5;
                 _IO :2;
            _IO CH0NB:1;
             };
    struct {
            _IO CH0SA0:1;
            _IO CH0SA1:1;
            _IO CH0SA2:1;
            _IO CH0SA3:1;
            _IO CH0SA4:1;
                  _IO :3;
            _IO CH0SB0:1;
            _IO CH0SB1:1;
            _IO CH0SB2:1;
            _IO CH0SB3:1;
            _IO CH0SB4:1;
              };
}AD1CHS0bits;

#define AD1CHS0   ((AD1CHS0bits*)(AD1CHS0_BASE))
/*****************************************************************************/
typedef union{
struct{
        _IO PCFG:9;
       };
struct{
       _IO PCFG0:1;
       _IO PCFG1:1;
       _IO PCFG2:1;
       _IO PCFG3:1;
       _IO PCFG4:1;
       _IO PCFG5:1;
       _IO PCFG6:1;
       _IO PCFG7:1;
       _IO PCFG8:1;
        };
}AD1PCFGLbits;

#define AD1PCFGL   ((AD1PCFGLbits*)(AD1PCFGL_BASE))
/*****************************************************************************/
typedef union{
 struct{
       _IO CSSL:9;
        };
 struct{
       _IO CSS0:1;
       _IO CSS1:1;
       _IO CSS2:1;
       _IO CSS3:1;
       _IO CSS4:1;
       _IO CSS5:1;
       _IO CSS6:1;
       _IO CSS7:1;
       _IO CSS8:1;
         };
}AD1CSSLbits;

#define AD1CSSL   ((AD1CSSLbits*)(AD1CSSL_BASE))
/*****************************************************************************/
//                      GPIO (PORT) REGISTRI:(23 registra)
//                      (KONTROLA DIGITALNIH I/O PINOVA)
/*****************************************************************************/
typedef union{
 struct{
       _IO TRISL:5;
             _IO:2;
       _IO TRISH:4;
```

```
2264          };
2265    struct{
2266          _IO TRIS:11;
2267          };
2268    struct{
2269          _IO TRISA0:1;
2270          _IO TRISA1:1;
2271          _IO TRISA2:1;
2272          _IO TRISA3:1;
2273          _IO TRISA4:1;
2274                _IO :2;
2275          _IO TRISA7:1;
2276          _IO TRISA8:1;
2277          _IO TRISA9:1;
2278         _IO TRISA10:1;
2279          };
2280   }TRISAbits;
2281
2282   #define TRISA   ((TRISAbits*)(TRISA_BASE))
2283   /*****************************************************************************/
2284   typedef union{
2285    struct{
2286          _IO PORTAL:5;
2287                _IO:2;
2288          _IO PORTAH:4;
2289          };
2290    struct{
2291         _IO PORTAR:16;
2292          };
2293    struct{
2294            _IO RA0:1;
2295            _IO RA1:1;
2296            _IO RA2:1;
2297            _IO RA3:1;
2298            _IO RA4:1;
2299               _IO :2;
2300            _IO RA7:1;
2301            _IO RA8:1;
2302            _IO RA9:1;
2303           _IO RA10:1;
2304           };
2305   }PORTAbits;
2306
2307   #define PORTA   ((PORTAbits*)(PORTA_BASE))
2308   /*****************************************************************************/
2309   typedef union{
2310    struct{
2311          _IO GPOAL:5;
2312                _IO:2;
2313          _IO GPOAH:4;
2314          };
2315    struct{
2316          _IO GPOA:16;
2317          };
2318    struct{
2319          _IO LATA0:1;
2320          _IO LATA1:1;
2321          _IO LATA2:1;
2322          _IO LATA3:1;
2323          _IO LATA4:1;
2324               _IO :2;
2325          _IO LATA7:1;
2326          _IO LATA8:1;
2327          _IO LATA9:1;
2328         _IO LATA10:1;
2329           };
2330     struct{
2331            _IO LA0:1;
2332            _IO LA1:1;
2333            _IO LA2:1;
2334            _IO LA3:1;
2335            _IO LA4:1;
2336               _IO :2;
```

```
2337            _IO LA7:1;
2338            _IO LA8:1;
2339            _IO LA9:1;
2340           _IO LA10:1;
2341            };
2342   }LATAbits;
2343
2344   #define LATA   ((LATAbits*)(LATA_BASE))
2345   /*************************************************************************/
2346   typedef union{
2347    struct{
2348          _IO ODCAL:5;
2349                _IO:2;
2350          _IO ODCAH:4;
2351           };
2352    struct{
2353         _IO ODCAR:16;
2354           };
2355    struct{
2356          _IO ODCA0:1;
2357          _IO ODCA1:1;
2358          _IO ODCA2:1;
2359          _IO ODCA3:1;
2360          _IO ODCA4:1;
2361                _IO :2;
2362          _IO ODCA7:1;
2363          _IO ODCA8:1;
2364          _IO ODCA9:1;
2365         _IO ODCA10:1;
2366           };
2367   }ODCAbits;
2368
2369   #define ODCA   ((ODCAbits*)(ODCA_BASE))
2370   /*************************************************************************/
2371   typedef union{
2372    struct{
2373         _IO TRIS:16;
2374           };
2375    struct{
2376          _IO TRISB0:1;
2377          _IO TRISB1:1;
2378          _IO TRISB2:1;
2379          _IO TRISB3:1;
2380          _IO TRISB4:1;
2381          _IO TRISB5:1;
2382          _IO TRISB6:1;
2383          _IO TRISB7:1;
2384          _IO TRISB8:1;
2385          _IO TRISB9:1;
2386         _IO TRISB10:1;
2387         _IO TRISB11:1;
2388         _IO TRISB12:1;
2389         _IO TRISB13:1;
2390         _IO TRISB14:1;
2391         _IO TRISB15:1;
2392           };
2393   }TRISBbits;
2394
2395   #define TRISB   ((TRISBbits*)(TRISB_BASE))
2396   /*************************************************************************/
2397   typedef union{
2398    struct{
2399         _IO PORT:16;
2400           };
2401    struct{
2402            _IO RB0:1;
2403            _IO RB1:1;
2404            _IO RB2:1;
2405            _IO RB3:1;
2406            _IO RB4:1;
2407            _IO RB5:1;
2408            _IO RB6:1;
2409            _IO RB7:1;
```

```
2410            _IO RB8:1;
2411            _IO RB9:1;
2412           _IO RB10:1;
2413           _IO RB11:1;
2414           _IO RB12:1;
2415           _IO RB13:1;
2416           _IO RB14:1;
2417           _IO RB15:1;
2418             };
2419  }PORTBbits;
2420
2421  #define PORTB   ((PORTBbits*)(PORTB_BASE))
2422  /*****************************************************************************/
2423  typedef union{
2424   struct{
2425         _IO LAT:16;
2426           };
2427   struct{
2428           _IO LB0:1;
2429           _IO LB1:1;
2430           _IO LB2:1;
2431           _IO LB3:1;
2432           _IO LB4:1;
2433           _IO LB5:1;
2434           _IO LB6:1;
2435           _IO LB7:1;
2436           _IO LB8:1;
2437           _IO LB9:1;
2438          _IO LB10:1;
2439          _IO LB11:1;
2440          _IO LB12:1;
2441          _IO LB13:1;
2442          _IO LB14:1;
2443          _IO LB15:1;
2444            };
2445   struct{
2446          _IO LATB0:1;
2447          _IO LATB1:1;
2448          _IO LATB2:1;
2449          _IO LATB3:1;
2450          _IO LATB4:1;
2451          _IO LATB5:1;
2452          _IO LATB6:1;
2453          _IO LATB7:1;
2454          _IO LATB8:1;
2455          _IO LATB9:1;
2456         _IO LATB10:1;
2457         _IO LATB11:1;
2458         _IO LATB12:1;
2459         _IO LATB13:1;
2460         _IO LATB14:1;
2461         _IO LATB15:1;
2462             };
2463  }LATBbits;
2464
2465  #define LATB   ((LATBbits*)(LATB_BASE))
2466  /*****************************************************************************/
2467  typedef union{
2468   struct{
2469         _IO ODCBR:16;
2470           };
2471   struct{
2472          _IO ODCB0:1;
2473          _IO ODCB1:1;
2474          _IO ODCB2:1;
2475          _IO ODCB3:1;
2476          _IO ODCB4:1;
2477          _IO ODCB5:1;
2478          _IO ODCB6:1;
2479          _IO ODCB7:1;
2480          _IO ODCB8:1;
2481          _IO ODCB9:1;
2482         _IO ODCB10:1;
```

```
2483         _IO ODCB11:1;
2484         _IO ODCB12:1;
2485         _IO ODCB13:1;
2486         _IO ODCB14:1;
2487         _IO ODCB15:1;
2488              };
2489   }ODCBbits;
2490
2491   #define ODCB    ((ODCBbits*)(ODCB_BASE))
2492   /*****************************************************************************/
2493   typedef union{
2494    struct{
2495         _IO TRIS:10;
2496           };
2497    struct{
2498          _IO TRISC0:1;
2499          _IO TRISC1:1;
2500          _IO TRISC2:1;
2501          _IO TRISC3:1;
2502          _IO TRISC4:1;
2503          _IO TRISC5:1;
2504          _IO TRISC6:1;
2505          _IO TRISC7:1;
2506          _IO TRISC8:1;
2507          _IO TRISC9:1;
2508             };
2509   }TRISCbits;
2510
2511   #define TRISC    ((TRISCbits*)(TRISC_BASE))
2512   /*****************************************************************************/
2513   typedef union{
2514    struct{
2515         _IO PORTCR:10;
2516           };
2517    struct{
2518              _IO RC0:1;
2519              _IO RC1:1;
2520              _IO RC2:1;
2521              _IO RC3:1;
2522              _IO RC4:1;
2523              _IO RC6:1;
2524              _IO RC7:1;
2525              _IO RC8:1;
2526              _IO RC9:1;
2527              };
2528   }PORTCbits;
2529
2530   #define PORTC    ((PORTCbits*)(PORTC_BASE))
2531   /*****************************************************************************/
2532   typedef union{
2533    struct{
2534         _IO LAT:10;
2535           };
2536    struct{
2537            _IO LC0:1;
2538            _IO LC1:1;
2539            _IO LC2:1;
2540            _IO LC3:1;
2541            _IO LC4:1;
2542            _IO LC5:1;
2543            _IO LC6:1;
2544            _IO LC7:1;
2545            _IO LC8:1;
2546            _IO LC9:1;
2547            };
2548    struct{
2549         _IO LATC0:1;
2550         _IO LATC1:1;
2551         _IO LATC2:1;
2552         _IO LATC3:1;
2553         _IO LATC4:1;
2554         _IO LATC5:1;
2555         _IO LATC6:1;
```

```
2556          _IO LATC7:1;
2557          _IO LATC8:1;
2558          _IO LATC9:1;
2559             };
2560   }LATCbits;
2561
2562   #define LATC    ((LATCbits*)(LATC_BASE))
2563   /*****************************************************************************/
2564   typedef union{
2565    struct{
2566          _IO ODCCR:10;
2567           };
2568    struct{
2569          _IO ODCC0:1;
2570          _IO ODCC1:1;
2571          _IO ODCC2:1;
2572          _IO ODCC3:1;
2573          _IO ODCC4:1;
2574          _IO ODCC5:1;
2575          _IO ODCC6:1;
2576          _IO ODCC7:1;
2577          _IO ODCC8:1;
2578          _IO ODCC9:1;
2579             };
2580   }ODCCbits;
2581
2582   #define ODCC    ((ODCCbits*)(ODCC_BASE))
2583   /*****************************************************************************/
2584   //           REGISTRI REMAPIRANJA ULAZNIH PINOVA ZA PERIFERALE:(13 registara)
2585   //                              (INUT PIN REMAPPING)
2586   /*****************************************************************************/
2587   typedef union {
2588       struct {
2589                     _IO :8;
2590               _IO INT1R:5;
2591                 };
2592       struct {
2593                     _IO :8;
2594               _IO INT1R0:1;
2595               _IO INT1R1:1;
2596               _IO INT1R2:1;
2597               _IO INT1R3:1;
2598               _IO INT1R4:1;
2599                };
2600   }RPINR0bits;
2601
2602   #define RPINR0    ((RPINR0bits*)(RPINR0_BASE))
2603   /*****************************************************************************/
2604   typedef union {
2605       struct {
2606                _IO INT2R:5;
2607                };
2608       struct {
2609               _IO INT2R0:1;
2610               _IO INT2R1:1;
2611               _IO INT2R2:1;
2612               _IO INT2R3:1;
2613               _IO INT2R4:1;
2614                };
2615   }RPINR1bits;
2616
2617   #define RPINR1    ((RPINR1bits*)(RPINR1_BASE))
2618   /*****************************************************************************/
2619   typedef union {
2620       struct {
2621               _IO T2CKR:5;
2622                     _IO :3;
2623               _IO T3CKR:5;
2624                };
2625       struct {
2626               _IO T2CKR0:1;
2627               _IO T2CKR1:1;
2628               _IO T2CKR2:1;
```

```
2629                _IO T2CKR3:1;
2630                _IO T2CKR4:1;
2631                      _IO :3;
2632                _IO T3CKR0:1;
2633                _IO T3CKR1:1;
2634                _IO T3CKR2:1;
2635                _IO T3CKR3:1;
2636                _IO T3CKR4:1;
2637                  };
2638    }RPINR3bits;
2639
2640    #define RPINR3   ((RPINR3bits*)(RPINR3_BASE))
2641    /*****************************************************************************/
2642    typedef union {
2643        struct {
2644                _IO IC1R:5;
2645                    _IO :3;
2646                _IO IC2R:5;
2647                  };
2648        struct {
2649                _IO IC1R0:1;
2650                _IO IC1R1:1;
2651                _IO IC1R2:1;
2652                _IO IC1R3:1;
2653                _IO IC1R4:1;
2654                     _IO :3;
2655                _IO IC2R0:1;
2656                _IO IC2R1:1;
2657                _IO IC2R2:1;
2658                _IO IC2R3:1;
2659                _IO IC2R4:1;
2660                  };
2661    }RPINR7bits;
2662
2663    #define RPINR7   ((RPINR7bits*)(RPINR7_BASE))
2664    /*****************************************************************************/
2665    typedef union {
2666        struct {
2667                _IO IC7R:5;
2668                    _IO :3;
2669                _IO IC8R:5;
2670                 };
2671        struct {
2672                _IO IC7R0:1;
2673                _IO IC7R1:1;
2674                _IO IC7R2:1;
2675                _IO IC7R3:1;
2676                _IO IC7R4:1;
2677                     _IO :3;
2678                _IO IC8R0:1;
2679                _IO IC8R1:1;
2680                _IO IC8R2:1;
2681                _IO IC8R3:1;
2682                _IO IC8R4:1;
2683                 };
2684    }RPINR10bits;
2685
2686    #define RPINR10   ((RPINR10bits*)(RPINR10_BASE))
2687    /*****************************************************************************/
2688    typedef union {
2689        struct {
2690                 _IO OCFAR:5;
2691                };
2692        struct {
2693                _IO OCFAR0:1;
2694                _IO OCFAR1:1;
2695                _IO OCFAR2:1;
2696                _IO OCFAR3:1;
2697                _IO OCFAR4:1;
2698                  };
2699    }RPINR11bits;
2700
2701    #define RPINR11   ((RPINR11bits*)(RPINR11_BASE))
```

```
2702  /*****************************************************************************/
2703  typedef union {
2704      struct {
2705              _IO FLTA1R:5;
2706             };
2707      struct {
2708             _IO FLTA1R0:1;
2709             _IO FLTA1R1:1;
2710             _IO FLTA1R2:1;
2711             _IO FLTA1R3:1;
2712             _IO FLTA1R4:1;
2713              };
2714  }RPINR12bits;
2715
2716  #define RPINR12   ((RPINR12bits*)(RPINR12_BASE))
2717  /*****************************************************************************/
2718  typedef union {
2719      struct {
2720              _IO FLTA2R:5;
2721             };
2722      struct {
2723             _IO FLTA2R0:1;
2724             _IO FLTA2R1:1;
2725             _IO FLTA2R2:1;
2726             _IO FLTA2R3:1;
2727             _IO FLTA2R4:1;
2728              };
2729  }RPINR13bits;
2730
2731  #define RPINR13   ((RPINR13bits*)(RPINR13_BASE))
2732  /*****************************************************************************/
2733  typedef union {
2734      struct {
2735             _IO QEA1R:5;
2736                  _IO :3;
2737             _IO QEB1R:5;
2738              };
2739      struct {
2740             _IO QEA1R0:1;
2741             _IO QEA1R1:1;
2742             _IO QEA1R2:1;
2743             _IO QEA1R3:1;
2744             _IO QEA1R4:1;
2745                    _IO :3;
2746             _IO QEB1R0:1;
2747             _IO QEB1R1:1;
2748             _IO QEB1R2:1;
2749             _IO QEB1R3:1;
2750             _IO QEB1R4:1;
2751              };
2752  }RPINR14bits;
2753
2754  #define RPINR14   ((RPINR14bits*)(RPINR14_BASE))
2755  /*****************************************************************************/
2756  typedef union {
2757      struct {
2758             _IO INDX1R:5;
2759              };
2760      struct {
2761             _IO INDX1R0:1;
2762             _IO INDX1R1:1;
2763             _IO INDX1R2:1;
2764             _IO INDX1R3:1;
2765             _IO INDX1R4:1;
2766              };
2767  }RPINR15bits;
2768
2769  #define RPINR15   ((RPINR15bits*)(RPINR15_BASE))
2770  /*****************************************************************************/
2771  typedef union {
2772      struct {
2773              _IO U1RXR:5;
2774                   _IO :3;
```

```
2775                _IO U1CTSR:5;
2776                 };
2777        struct {
2778                _IO U1RXR0:1;
2779                _IO U1RXR1:1;
2780                _IO U1RXR2:1;
2781                _IO U1RXR3:1;
2782                _IO U1RXR4:1;
2783                      _IO :3;
2784               _IO U1CTSR0:1;
2785               _IO U1CTSR1:1;
2786               _IO U1CTSR2:1;
2787               _IO U1CTSR3:1;
2788               _IO U1CTSR4:1;
2789                  };
2790    }RPINR18bits;
2791
2792    #define RPINR18   ((RPINR18bits*)(RPINR18_BASE))
2793    /*****************************************************************************/
2794    typedef union {
2795        struct {
2796                _IO SDI1R:5;
2797                     _IO :3;
2798                _IO SCK1R:5;
2799                 };
2800        struct {
2801                _IO SDI1R0:1;
2802                _IO SDI1R1:1;
2803                _IO SDI1R2:1;
2804                _IO SDI1R3:1;
2805                _IO SDI1R4:1;
2806                      _IO :3;
2807                _IO SCK1R0:1;
2808                _IO SCK1R1:1;
2809                _IO SCK1R2:1;
2810                _IO SCK1R3:1;
2811                _IO SCK1R4:1;
2812                  };
2813    }RPINR20bits;
2814
2815    #define RPINR20   ((RPINR20bits*)(RPINR20_BASE))
2816    /*****************************************************************************/
2817    typedef union {
2818        struct {
2819                 _IO SS1R:5;
2820                 };
2821        struct {
2822                _IO SS1R0:1;
2823                _IO SS1R1:1;
2824                _IO SS1R2:1;
2825                _IO SS1R3:1;
2826                _IO SS1R4:1;
2827                 };
2828    }RPINR21bits;
2829
2830    #define RPINR21   ((RPINR21bits*)(RPINR21_BASE))
2831    /*****************************************************************************/
2832    //           REGISTRI REMAPIRANJA IZLAZNIH PINOVA ZA PERIFERALE:(13 registara)
2833    //                       (OUTPUT PIN REMAPPING)
2834    /*****************************************************************************/
2835    typedef union {
2836        struct {
2837                _IO RP0R:5;
2838                     _IO :3;
2839                _IO RP1R:5;
2840                 };
2841        struct {
2842                _IO RP0R0:1;
2843                _IO RP0R1:1;
2844                _IO RP0R2:1;
2845                _IO RP0R3:1;
2846                _IO RP0R4:1;
2847                     _IO :3;
```

```
2848                _IO RP1R0:1;
2849                _IO RP1R1:1;
2850                _IO RP1R2:1;
2851                _IO RP1R3:1;
2852                _IO RP1R4:1;
2853                   };
2854    }RPOR0bits;
2855
2856    #define RPOR0    ((RPOR0bits*)(RPOR0_BASE))
2857    /*****************************************************************************/
2858    typedef union {
2859        struct {
2860                _IO RP2R:5;
2861                     _IO :3;
2862                _IO RP3R:5;
2863                 };
2864        struct {
2865                _IO RP2R0:1;
2866                _IO RP2R1:1;
2867                _IO RP2R2:1;
2868                _IO RP2R3:1;
2869                _IO RP2R4:1;
2870                      _IO :3;
2871                _IO RP3R0:1;
2872                _IO RP3R1:1;
2873                _IO RP3R2:1;
2874                _IO RP3R3:1;
2875                _IO RP3R4:1;
2876                 };
2877    }RPOR1bits;
2878
2879    #define RPOR1    ((RPOR1bits*)(RPOR1_BASE))
2880    /*****************************************************************************/
2881    typedef union {
2882        struct {
2883                _IO RP4R:5;
2884                     _IO :3;
2885                _IO RP5R:5;
2886                 };
2887        struct {
2888                _IO RP4R0:1;
2889                _IO RP4R1:1;
2890                _IO RP4R2:1;
2891                _IO RP4R3:1;
2892                _IO RP4R4:1;
2893                      _IO :3;
2894                _IO RP5R0:1;
2895                _IO RP5R1:1;
2896                _IO RP5R2:1;
2897                _IO RP5R3:1;
2898                _IO RP5R4:1;
2899                  };
2900    }RPOR2bits;
2901
2902    #define RPOR2    ((RPOR2bits*)(RPOR2_BASE))
2903    /*****************************************************************************/
2904    typedef union {
2905        struct {
2906                _IO RP6R:5;
2907                     _IO :3;
2908                _IO RP7R:5;
2909                 };
2910        struct {
2911                _IO RP6R0:1;
2912                _IO RP6R1:1;
2913                _IO RP6R2:1;
2914                _IO RP6R3:1;
2915                _IO RP6R4:1;
2916                      _IO :3;
2917                _IO RP7R0:1;
2918                _IO RP7R1:1;
2919                _IO RP7R2:1;
2920                _IO RP7R3:1;
```

```
            _IO RP7R4:1;
              };
}RPOR3bits;

#define RPOR3   ((RPOR3bits*)(RPOR3_BASE))
/*****************************************************************************/
typedef union {
    struct {
            _IO RP8R:5;
                _IO :3;
            _IO RP9R:5;
             };
    struct {
            _IO RP8R0:1;
            _IO RP8R1:1;
            _IO RP8R2:1;
            _IO RP8R3:1;
            _IO RP8R4:1;
                 _IO :3;
            _IO RP9R0:1;
            _IO RP9R1:1;
            _IO RP9R2:1;
            _IO RP9R3:1;
            _IO RP9R4:1;
              };
}RPOR4bits;

#define RPOR4   ((RPOR4bits*)(RPOR4_BASE))
/*****************************************************************************/
typedef union {
    struct {
            _IO RP10R:5;
                 _IO :3;
            _IO RP11R:5;
             };
    struct {
            _IO RP10R0:1;
            _IO RP10R1:1;
            _IO RP10R2:1;
            _IO RP10R3:1;
            _IO RP10R4:1;
                   _IO :3;
            _IO RP11R0:1;
            _IO RP11R1:1;
            _IO RP11R2:1;
            _IO RP11R3:1;
            _IO RP11R4:1;
              };
}RPOR5bits;

#define RPOR5   ((RPOR5bits*)(RPOR5_BASE))
/*****************************************************************************/
typedef union {
    struct {
            _IO RP12R:5;
                 _IO :3;
            _IO RP13R:5;
              };
    struct {
            _IO RP12R0:1;
            _IO RP12R1:1;
            _IO RP12R2:1;
            _IO RP12R3:1;
            _IO RP12R4:1;
                   _IO :3;
            _IO RP13R0:1;
            _IO RP13R1:1;
            _IO RP13R2:1;
            _IO RP13R3:1;
            _IO RP13R4:1;
              };
}RPOR6bits;
```

```
2994  #define RPOR6   ((RPOR6bits*)(RPOR6_BASE))
2995  /*****************************************************************************/
2996  typedef union {
2997      struct {
2998              _IO RP14R:5;
2999                   _IO :3;
3000              _IO RP15R:5;
3001               };
3002      struct {
3003              _IO RP14R0:1;
3004              _IO RP14R1:1;
3005              _IO RP14R2:1;
3006              _IO RP14R3:1;
3007              _IO RP14R4:1;
3008                     _IO :3;
3009              _IO RP15R0:1;
3010              _IO RP15R1:1;
3011              _IO RP15R2:1;
3012              _IO RP15R3:1;
3013              _IO RP15R4:1;
3014               };
3015  }RPOR7bits;
3016
3017  #define RPOR7   ((RPOR7bits*)(RPOR7_BASE))
3018  /*****************************************************************************/
3019  typedef union {
3020      struct {
3021              _IO RP16R:5;
3022                   _IO :3;
3023              _IO RP17R:5;
3024               };
3025      struct {
3026              _IO RP16R0:1;
3027              _IO RP16R1:1;
3028              _IO RP16R2:1;
3029              _IO RP16R3:1;
3030              _IO RP16R4:1;
3031                     _IO :3;
3032              _IO RP17R0:1;
3033              _IO RP17R1:1;
3034              _IO RP17R2:1;
3035              _IO RP17R3:1;
3036              _IO RP17R4:1;
3037                 };
3038  }RPOR8bits;
3039
3040  #define RPOR8   ((RPOR8bits*)(RPOR8_BASE))
3041  /*****************************************************************************/
3042  typedef union {
3043      struct {
3044               _IO RP18R:5;
3045                    _IO :3;
3046               _IO RP19R:5;
3047               };
3048      struct {
3049              _IO RP18R0:1;
3050              _IO RP18R1:1;
3051              _IO RP18R2:1;
3052              _IO RP18R3:1;
3053              _IO RP18R4:1;
3054                     _IO :3;
3055              _IO RP19R0:1;
3056              _IO RP19R1:1;
3057              _IO RP19R2:1;
3058              _IO RP19R3:1;
3059              _IO RP19R4:1;
3060                };
3061  }RPOR9bits;
3062
3063  #define RPOR9   ((RPOR9bits*)(RPOR9_BASE))
3064  /*****************************************************************************/
3065  typedef union {
3066      struct {
```

```
3067                _IO RP20R:5;
3068                     _IO :3;
3069                _IO RP21R:5;
3070                 };
3071        struct {
3072                _IO RP20R0:1;
3073                _IO RP20R1:1;
3074                _IO RP20R2:1;
3075                _IO RP20R3:1;
3076                _IO RP20R4:1;
3077                       _IO :3;
3078                _IO RP21R0:1;
3079                _IO RP21R1:1;
3080                _IO RP21R2:1;
3081                _IO RP21R3:1;
3082                _IO RP21R4:1;
3083                  };
3084    }RPOR10bits;
3085
3086    #define RPOR10    ((RPOR10bits*)(RPOR10_BASE))
3087    /*****************************************************************************/
3088    typedef union {
3089        struct {
3090                _IO RP22R:5;
3091                     _IO :3;
3092                _IO RP23R:5;
3093                 };
3094        struct {
3095                _IO RP22R0:1;
3096                _IO RP22R1:1;
3097                _IO RP22R2:1;
3098                _IO RP22R3:1;
3099                _IO RP22R4:1;
3100                       _IO :3;
3101                _IO RP23R0:1;
3102                _IO RP23R1:1;
3103                _IO RP23R2:1;
3104                _IO RP23R3:1;
3105                _IO RP23R4:1;
3106                   };
3107    }RPOR11bits;
3108
3109    #define RPOR11    ((RPOR11bits*)(RPOR11_BASE))
3110    /*****************************************************************************/
3111    typedef union {
3112        struct {
3113                _IO RP24R:5;
3114                     _IO :3;
3115                _IO RP25R:5;
3116                 };
3117        struct {
3118                _IO RP24R0:1;
3119                _IO RP24R1:1;
3120                _IO RP24R2:1;
3121                _IO RP24R3:1;
3122                _IO RP24R4:1;
3123                       _IO :3;
3124                _IO RP25R0:1;
3125                _IO RP25R1:1;
3126                _IO RP25R2:1;
3127                _IO RP25R3:1;
3128                _IO RP25R4:1;
3129                  };
3130    }RPOR12bits;
3131
3132    #define RPOR12    ((RPOR12bits*)(RPOR12_BASE))
3133    /*****************************************************************************/
3134    //                          REGISTRI KONTROLE SISTEMA:
3135    //
3136    /*****************************************************************************/
3137    typedef union{
3138     struct{
3139           _IO POR:1;
```

```
3140            _IO BOR:1;
3141           _IO IDLE:1;
3142          _IO SLEEP:1;
3143           _IO WDTO:1;
3144         _IO SWDTEN:1;
3145            _IO SWR:1;
3146           _IO EXTR:1;
3147          _IO VREGS:1;
3148             _IO CM:1;
3149              _IO :4;
3150         _IO IOPUWR:1;
3151          _IO TRAPR:1;
3152             };
3153   }RCONbits;
3154
3155   #define RCON   ((RCONbits*)(RCON_BASE))
3156   /******************************************************************************/
3157   typedef union {
3158       struct {
3159                 _IO OSWEN:1;
3160               _IO LPOSCEN:1;
3161                       _IO :1;
3162                    _IO CF:1;
3163                       _IO :1;
3164                  _IO LOCK:1;
3165                _IO IOLOCK:1;
3166               _IO CLKLOCK:1;
3167                  _IO NOSC:3;
3168                       _IO :1;
3169                  _IO COSC:3;
3170                };
3171       struct {
3172                       _IO :8;
3173               _IO NOSC0:1;
3174               _IO NOSC1:1;
3175               _IO NOSC2:1;
3176                       _IO :1;
3177               _IO COSC0:1;
3178               _IO COSC1:1;
3179               _IO COSC2:1;
3180                };
3181   }OSCCONbits;
3182
3183   #define OSCCON   ((OSCCONbits*)(OSCCON_BASE))
3184   /******************************************************************************/
3185   typedef union {
3186       struct {
3187                _IO PLLPRE:5;
3188                       _IO :1;
3189               _IO PLLPOST:2;
3190                _IO FRCDIV:3;
3191                 _IO DOZEN:1;
3192                  _IO DOZE:3;
3193                   _IO ROI:1;
3194                };
3195       struct {
3196               _IO PLLPRE0:1;
3197               _IO PLLPRE1:1;
3198               _IO PLLPRE2:1;
3199               _IO PLLPRE3:1;
3200               _IO PLLPRE4:1;
3201                       _IO :1;
3202              _IO PLLPOST0:1;
3203              _IO PLLPOST1:1;
3204               _IO FRCDIV0:1;
3205               _IO FRCDIV1:1;
3206               _IO FRCDIV2:1;
3207                       _IO :1;
3208                 _IO DOZE0:1;
3209                 _IO DOZE1:1;
3210                 _IO DOZE2:1;
3211                };
3212   }CLKDIVbits;
```

```
3213
3214  #define CLKDIV   ((CLKDIVbits*)(CLKDIV_BASE))
3215  /*****************************************************************************/
3216  typedef  union {
3217      struct {
3218              _IO PLLDIV:9;
3219                };
3220      struct {
3221              _IO PLLDIV0:1;
3222              _IO PLLDIV1:1;
3223              _IO PLLDIV2:1;
3224              _IO PLLDIV3:1;
3225              _IO PLLDIV4:1;
3226              _IO PLLDIV5:1;
3227              _IO PLLDIV6:1;
3228              _IO PLLDIV7:1;
3229              _IO PLLDIV8:1;
3230                };
3231  }PLLFBDbits;
3232
3233  #define PLLFBD   ((PLLFBDbits*)(PLLFBD_BASE))
3234  /*****************************************************************************/
3235  typedef union {
3236      struct {
3237              _IO TUN:6;
3238               };
3239      struct {
3240              _IO TUN0:1;
3241              _IO TUN1:1;
3242              _IO TUN2:1;
3243              _IO TUN3:1;
3244              _IO TUN4:1;
3245              _IO TUN5:1;
3246               };
3247  }OSCTUNbits;
3248
3249  #define OSCTUN   ((OSCTUNbits*)(OSCTUN_BASE))
3250  /*****************************************************************************/
3251  //                         NVM KONTROLNI REGISTRI:(2 registra)
3252  //
3253  /*****************************************************************************/
3254  typedef union {
3255      struct {
3256              _IO NVMOP:4;
3257                   _IO :2;
3258              _IO ERASE:1;
3259                   _IO :6;
3260              _IO WRERR:1;
3261               _IO WREN:1;
3262                 _IO WR:1;
3263                };
3264      struct {
3265              _IO NVMOP0:1;
3266              _IO NVMOP1:1;
3267              _IO NVMOP2:1;
3268              _IO NVMOP3:1;
3269               };
3270  }NVMCONbits;
3271
3272  #define NVMCON   ((NVMCONbits*)(NVMCON_BASE))
3273  /*****************************************************************************/
3274  typedef union
3275   {
3276    struct
3277     {
3278       _IO NVMKEYR:8;//BUG!!!
3279      };
3280    }NVMKEYbits;
3281
3282  #define NVMKEY   ((NVMKEYbits*)(NVMKEY_BASE))
3283  /*****************************************************************************/
3284  //                         PMD KONTROLNI REGISTRI:(3 registra)
3285  //                         (ONEMOGUCAVANJE MODULA PERIFERALA)
```

```
3286  /*****************************************************************************/
3287  typedef union {
3288      struct {
3289              _IO AD1MD:1;
3290                    _IO :2;
3291             _IO SPI1MD:1;
3292                    _IO :1;
3293              _IO U1MD:1;
3294                    _IO:1;
3295             _IO I2C1MD:1;
3296                    _IO:1;
3297             _IO PWM1MD:1;
3298              _IO QEIMD:1;
3299               _IO T1MD:1;
3300               _IO T2MD:1;
3301               _IO T3MD:1;
3302                 };
3303  }PMD1bits;
3304
3305  #define PMD1    ((PMD1bits*)(PMD1_BASE))
3306  /*****************************************************************************/
3307  typedef union {
3308      struct {
3309              _IO OC1MD:1;
3310              _IO OC2MD:1;
3311                    _IO:6;
3312              _IO IC1MD:1;
3313              _IO IC2MD:1;
3314                    _IO:4;
3315              _IO IC7MD:1;
3316              _IO IC8MD:1;
3317                 };
3318  }PMD2bits;
3319
3320  #define PMD2    ((PMD2bits*)(PMD2_BASE))
3321  /*****************************************************************************/
3322  typedef union {
3323      struct {
3324                    _IO:4;
3325             _IO PWM2MD:1;
3326                 };
3327  }PMD3bits;
3328
3329  #define PMD3    ((PMD3bits*)(PMD3_BASE))
3330  /*****************************************************************************/
3331  #endif
3332
```