```
#ifndef _128MC506AREGSV1_H_
#define _128MC506AREGSV1_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 BSRAM_BASE        0x0750
#define SSRAM_BASE        0x0752

#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 IFS2_BASE         0x0088
#define IFS3_BASE         0x008A
#define IFS4_BASE         0x008C
#define IEC0_BASE         0x0094
#define IEC1_BASE         0x0096
#define IEC2_BASE         0x0098
#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 IPC6_BASE         0x00B0
#define IPC7_BASE         0x00B2
#define IPC8_BASE         0x00B4
#define IPC9_BASE         0x00B6
#define IPC10_BASE        0x00B8
#define IPC11_BASE        0x00BA
#define IPC12_BASE        0x00BC
#define IPC13_BASE        0x00BE
#define IPC14_BASE        0x00C0
#define IPC15_BASE        0x00C2
#define IPC16_BASE        0x00C4
#define IPC17_BASE        0x00C6
#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 TMR4_BASE         0x0114
#define TMR5HLD_BASE      0x0116
#define TMR5_BASE         0x0118
#define PR4_BASE          0x011A
#define PR5_BASE          0x011C
#define T4CON_BASE        0x011E
#define T5CON_BASE        0x0120
```

```
74   #define TMR6_BASE          0x0122
75   #define TMR7HLD_BASE       0x0124
76   #define TMR7_BASE          0x0126
77   #define PR6_BASE           0x0128
78   #define PR7_BASE           0x012A
79   #define T6CON_BASE         0x012C
80   #define T7CON_BASE         0x012E
81   #define TMR8_BASE          0x0130
82   #define TMR9HLD_BASE       0x0132
83   #define TMR9_BASE          0x0134
84   #define PR8_BASE           0x0136
85   #define PR9_BASE           0x0138
86   #define T8CON_BASE         0x013A
87   #define T9CON_BASE         0x013C
88
89   #define IC1BUF_BASE        0x0140
90   #define IC1CON_BASE        0x0142
91   #define IC2BUF_BASE        0x0144
92   #define IC2CON_BASE        0x0146
93   #define IC3BUF_BASE        0x0148
94   #define IC3CON_BASE        0x014A
95   #define IC4BUF_BASE        0x014C
96   #define IC4CON_BASE        0x014E
97   #define IC5BUF_BASE        0x0150
98   #define IC5CON_BASE        0x0152
99   #define IC6BUF_BASE        0x0154
100  #define IC6CON_BASE        0x0156
101  #define IC7BUF_BASE        0x0158
102  #define IC7CON_BASE        0x015A
103  #define IC8BUF_BASE        0x015C
104  #define IC8CON_BASE        0x015E
105
106  #define OC1RS_BASE         0x0180
107  #define OC1R_BASE          0x0182
108  #define OC1CON_BASE        0x0184
109  #define OC2RS_BASE         0x0186
110  #define OC2R_BASE          0x0188
111  #define OC2CON_BASE        0x018A
112  #define OC3RS_BASE         0x018C
113  #define OC3R_BASE          0x018E
114  #define OC3CON_BASE        0x0190
115  #define OC4RS_BASE         0x0192
116  #define OC4R_BASE          0x0194
117  #define OC4CON_BASE        0x0196
118  #define OC5RS_BASE         0x0198
119  #define OC5R_BASE          0x019A
120  #define OC5CON_BASE        0x019C
121  #define OC6RS_BASE         0x019E
122  #define OC6R_BASE          0x01A0
123  #define OC6CON_BASE        0x01A2
124  #define OC7RS_BASE         0x01A4
125  #define OC7R_BASE          0x01A6
126  #define OC7CON_BASE        0x01A8
127  #define OC8RS_BASE         0x01AA
128  #define OC8R_BASE          0x01AC
129  #define OC8CON_BASE        0x01AE
130
131  #define P1TCON_BASE        0x01C0
132  #define P1TMR_BASE         0x01C2
133  #define P1TPER_BASE        0x01C4
134  #define P1SECMP_BASE       0x01C6
135  #define PWM1CON1_BASE      0x01C8
136  #define PWM1CON2_BASE      0x01CA
137  #define P1DTCON1_BASE      0x01CC
138  #define P1DTCON2_BASE      0x01CE
139  #define P1FLTACON_BASE     0x01D0
140  #define P1FLTBCON_BASE     0x01D2
141  #define P1OVDCON_BASE      0x01D4
142  #define P1DC1_BASE         0x01D6
143  #define P1DC2_BASE         0x01D8
144  #define P1DC3_BASE         0x01DA
145  #define P1DC4_BASE         0x01DC
146
```

```
147   #define QEI1CON_BASE      0x01E0
148   #define DFLT1CON_BASE     0x01E2
149   #define POS1CNT_BASE      0x01E4
150   #define MAX1CNT_BASE      0x01E6
151
152
153   #define I2C1RCV_BASE      0x0200
154   #define I2C1TRN_BASE      0x0202
155   #define I2C1BRG_BASE      0x0204
156   #define I2C1CON_BASE      0x0206
157   #define I2C1STAT_BASE     0x0208
158   #define I2C1ADD_BASE      0x020A
159   #define I2C1MSK_BASE      0x020C
160
161   #define I2C2RCV_BASE      0x0210
162   #define I2C2TRN_BASE      0x0212
163   #define I2C2BRG_BASE      0x0214
164   #define I2C2CON_BASE      0x0216
165   #define I2C2STAT_BASE     0x0218
166   #define I2C2ADD_BASE      0x021A
167   #define I2C2MSK_BASE      0x021C
168
169   #define U1MODE_BASE       0x0220
170   #define U1STA_BASE        0x0222
171   #define U1TXREG_BASE      0x0224
172   #define U1RXREG_BASE      0x0226
173   #define U1BRG_BASE        0x0228
174
175   #define U2MODE_BASE       0x0230
176   #define U2STA_BASE        0x0232
177   #define U2TXREG_BASE      0x0234
178   #define U2RXREG_BASE      0x0236
179   #define U2BRG_BASE        0x0238
180
181   #define SPI1STAT_BASE     0x0240
182   #define SPI1CON1_BASE     0x0242
183   #define SPI1CON2_BASE     0x0244
184   #define SPI1BUF_BASE      0x0248
185
186   #define SPI2STAT_BASE     0x0260
187   #define SPI2CON1_BASE     0x0262
188   #define SPI2CON2_BASE     0x0264
189   #define SPI2BUF_BASE      0x0268
190
191   #define ADC1BUF0_BASE     0x0300
192   #define AD1CON1_BASE      0x0320
193   #define AD1CON2_BASE      0x0322
194   #define AD1CON3_BASE      0x0324
195   #define AD1CHS123_BASE    0x0326
196   #define AD1CHS0_BASE      0x0328
197   #define AD1PCFGH_BASE     0x032A
198   #define AD1PCFGL_BASE     0x032C
199   #define AD1CSSH_BASE      0x032E
200   #define AD1CSSL_BASE      0x0330
201   #define AD1CON4_BASE      0x0332
202
203   #define DMA0CON_BASE      0x0380
204   #define DMA0REQ_BASE      0x0382
205   #define DMA0STA_BASE      0x0384
206   #define DMA0STB_BASE      0x0386
207   #define DMA0PAD_BASE      0x0388
208   #define DMA0CNT_BASE      0x038A
209
210   #define DMA1CON_BASE      0x038C
211   #define DMA1REQ_BASE      0x038E
212   #define DMA1STA_BASE      0x0390
213   #define DMA1STB_BASE      0x0392
214   #define DMA1PAD_BASE      0x0394
215   #define DMA1CNT_BASE      0x0396
216
217   #define DMA2CON_BASE      0x0398
218   #define DMA2REQ_BASE      0x039A
219   #define DMA2STA_BASE      0x039C
```

```
220   #define DMA2STB_BASE      0x039E
221   #define DMA2PAD_BASE      0x03A0
222   #define DMA2CNT_BASE      0x03A2
223
224   #define DMA3CON_BASE      0x03A4
225   #define DMA3REQ_BASE      0x03A6
226   #define DMA3STA_BASE      0x03A8
227   #define DMA3STB_BASE      0x03AA
228   #define DMA3PAD_BASE      0x03AC
229   #define DMA3CNT_BASE      0x03AE
230
231   #define DMA4CON_BASE      0x03B0
232   #define DMA4REQ_BASE      0x03B2
233   #define DMA4STA_BASE      0x03B4
234   #define DMA4STB_BASE      0x03B6
235   #define DMA4PAD_BASE      0x03B8
236   #define DMA4CNT_BASE      0x03BA
237
238   #define DMA5CON_BASE      0x03BC
239   #define DMA5REQ_BASE      0x03BE
240   #define DMA5STA_BASE      0x03C0
241   #define DMA5STB_BASE      0x03C2
242   #define DMA5PAD_BASE      0x03C4
243   #define DMA5CNT_BASE      0x03C6
244
245   #define DMA6CON_BASE      0x03C8
246   #define DMA6REQ_BASE      0x03CA
247   #define DMA6STA_BASE      0x03CC
248   #define DMA6STB_BASE      0x03CE
249   #define DMA6PAD_BASE      0x03D0
250   #define DMA6CNT_BASE      0x03D2
251
252   #define DMA7CON_BASE      0x03D4
253   #define DMA7REQ_BASE      0x03D6
254   #define DMA7STA_BASE      0x03D8
255   #define DMA7STB_BASE      0x03DA
256   #define DMA7PAD_BASE      0x03DC
257   #define DMA7CNT_BASE      0x03DE
258
259   #define DMACS0_BASE       0x03E0
260   #define DMACS1_BASE       0x03E2
261   #define DSADR_BASE        0x03E4
262
263   /*Preskoceni potuno ECAN1 i ECAN2 moduli*/
264
265   #define TRISB_BASE      0x02C6
266   #define PORTB_BASE      0x02C8
267   #define LATB_BASE       0x02CA
268
269
270   #define TRISC_BASE      0x02CC
271   #define PORTC_BASE      0x02CE
272   #define LATC_BASE       0x02D0
273
274   #define TRISD_BASE      0x02D2
275   #define PORTD_BASE      0x02D4
276   #define LATD_BASE       0x02D6
277   #define ODCD_BASE       0x06D2
278
279   #define TRISE_BASE      0x02D8
280   #define PORTE_BASE      0x02DA
281   #define LATE_BASE       0x02DC
282
283   #define TRISF_BASE      0x02DE
284   #define PORTF_BASE      0x02E0
285   #define LATF_BASE       0x02E2
286   #define ODCF_BASE       0x06DE
287
288   #define TRISG_BASE      0x02E4
289   #define PORTG_BASE      0x02E6
290   #define LATG_BASE       0x02E8
291   #define ODCG_BASE       0x06E4
292
```

```
#define RCON_BASE         0x0740
#define OSCCON_BASE       0x0742
#define CLKDIV_BASE       0x0744
#define PLLFBD_BASE       0x0746
#define OSCTUN_BASE       0x0748

#define NVMCON_BASE       0x0760
#define NVMKEY_BASE       0x0766

#define PMD1_BASE         0x0770
#define PMD2_BASE         0x0772
#define PMD3_BASE         0x0774

/*Sada dolazi definicija svih registara preko struktura podataka 'union' i
                                                                'struct'*/
/*                 ALU kontrolni registri:                    */
typedef union{
    struct {
             _IO C:1;
             _IO Z:1;
             _IO OV:1;
             _IO N:1;
             _IO RA:1;
             _IO IPL:3;
             _IO DC:1;
             _IO DA:1;
             _IO SAB:1;
             _IO OAB:1;
             _IO SB:1;
             _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;
             _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;
```

```
364                 _IO BWM:4;
365                 _IO :2;
366                 _IO YMODEN:1;
367                 _IO XMODEN:1;
368                 };
369       struct {
370                 _IO XWM0:1;
371                 _IO XWM1:1;
372                 _IO XWM2:1;
373                 _IO XWM3:1;
374                 _IO YWM0:1;
375                 _IO YWM1:1;
376                 _IO YWM2:1;
377                 _IO YWM3:1;
378                 _IO BWM0:1;
379                 _IO BWM1:1;
380                 _IO BWM2:1;
381                 _IO BWM3:1;
382                 };
383   }MODCONbits;
384
385   #define MODCON    ((MODCONbits*)(MODCON_BASE))
386   /*****************************************************************************/
387   typedef union
388    {
389     struct
390      {
391        _IO       :1 ;
392        _IO MODSRT:15;
393       };
394     }XMODSRTbits;
395
396   #define XMODSRT   ((XMODSRTbits*)(XMODSRT_BASE))
397   /*****************************************************************************/
398   typedef union
399    {
400     struct
401      {
402        _IO       :1 ;
403        _IO MODEND:15;
404       };
405     }XMODENDbits;
406
407   #define XMODEND   ((XMODENDbits*)(XMODEND_BASE))
408   /*****************************************************************************/
409   typedef union
410    {
411     struct
412      {
413        _IO       :1 ;
414        _IO MODSRT:15;
415       };
416     }YMODSRTbits;
417
418   #define YMODSRT   ((YMODSRTbits*)(YMODSRT_BASE))
419   /*****************************************************************************/
420   typedef union
421    {
422     struct
423      {
424        _IO       :1 ;
425        _IO MODEND:15;
426       };
427     }YMODENDbits;
428
429   #define YMODEND   ((YMODENDbits*)(YMODEND_BASE))
430   /*****************************************************************************/
431   typedef union{
432       struct {
433                 _IO XB:15;
434                 _IO BREN:1;
435                 };
436       struct {
```

```
437                 _IO XB0:1;
438                 _IO XB1:1;
439                 _IO XB2:1;
440                 _IO XB3:1;
441                 _IO XB4:1;
442                 _IO XB5:1;
443                 _IO XB6:1;
444                 _IO XB7:1;
445                 _IO XB8:1;
446                 _IO XB9:1;
447                 _IO XB10:1;
448                 _IO XB11:1;
449                 _IO XB12:1;
450                 _IO XB13:1;
451                 _IO XB14:1;
452                   };
453   }XBREVbits;
454
455   #define XBREV    ((XBREVbits*)(XBREV_BASE))
456   /*****************************************************************************/
457   typedef union
458    {
459     struct
460      {
461        _IO DICNT:14;
462       };
463     }DISICNTbits;
464
465   #define DISICNT   ((DISICNTbits*)(DISICNT_BASE))
466   /*****************************************************************************/
467   typedef union
468    {
469     struct
470      {
471        _IO RLBSR:1;
472        _IO IRBSR:1;
473        _IO IWBSR:1;
474       };
475     }BSRAMbits;
476
477   #define BSRAM   ((BSRAMbits*)(BSRAM_BASE))
478   /*****************************************************************************/
479   typedef union
480    {
481     struct
482      {
483        _IO RLSSR:1;
484        _IO IRSSR:1;
485        _IO IWSSR:1;
486       };
487     }SSRAMbits;
488
489   #define SSRAM   ((SSRAMbits*)(SSRAM_BASE))
490   /*****************************************************************************/
491   //              STRUKTURE ZA KONTROLU CHANGE NOTIFICATION MODULA:
492   //
493   /*****************************************************************************/
494   typedef union{
495     struct{
496             _IO CNEN:16;
497            };
498     struct{
499             _IO CN0IE:1;
500             _IO CN1IE:1;
501             _IO CN2IE:1;
502             _IO CN3IE:1;
503             _IO CN4IE:1;
504             _IO CN5IE:1;
505             _IO CN6IE:1;
506             _IO CN7IE:1;
507             _IO CN8IE:1;
508             _IO CN9IE:1;
509             _IO CN10IE:1;
```

```
510             _IO CN11IE:1;
511             _IO CN12IE:1;
512             _IO CN13IE:1;
513             _IO CN14IE:1;
514             _IO CN15IE:1;
515              };
516   }CNEN1bits;
517
518   #define CNEN1    ((CNEN1bits*)(CNEN1_BASE))
519   /*****************************************************************************/
520   typedef union{
521     struct{
522             _IO CNEN16_18:3;
523            };
524     struct{
525             _IO CN16IE:1;
526             _IO CN17IE:1;
527             _IO CN18IE:1;
528            };
529   }CNEN2bits;
530
531   #define CNEN2    ((CNEN2bits*)(CNEN2_BASE))
532   /*****************************************************************************/
533   typedef union{
534     struct{
535             _IO CNPU:16;
536           };
537     struct{
538             _IO CN0PUE:1;
539             _IO CN1PUE:1;
540             _IO CN2PUE:1;
541             _IO CN3PUE:1;
542             _IO CN4PUE:1;
543             _IO CN5PUE:1;
544             _IO CN6PUE:1;
545             _IO CN7PUE:1;
546             _IO CN8PUE:1;
547             _IO CN9PUE:1;
548             _IO CN10PUE:1;
549             _IO CN11PUE:1;
550             _IO CN12PUE:1;
551             _IO CN13PUE:1;
552             _IO CN14PUE:1;
553             _IO CN15PUE:1;
554               };
555   }CNPU1bits;
556
557   #define CNPU1    ((CNPU1bits*)(CNPU1_BASE))
558   /*****************************************************************************/
559   typedef union{
560     struct{
561         _IO CNPU16_18:3;
562           };
563     struct{
564             _IO CN16PUE:1;
565             _IO CN17PUE:1;
566             _IO CN18PUE:1;
567              };
568   }CNPU2bits;
569
570   #define CNPU2    ((CNPU2bits*)(CNPU2_BASE))
571   /*****************************************************************************/
572   //              STRUKTURE I REGISTR ZA KONTROLU I STATUS PREKIDA:
573   //
574   /*****************************************************************************/
575   typedef union{
576     struct{
577             _IO :1;
578             _IO OSCFAIL:1;
579             _IO STKERR:1;
580             _IO ADDRERR:1;
581             _IO MATHERR:1;
582             _IO DMACERR:1;
```

```
583             _IO DIV0ERR:1;
584             _IO SFTACERR:1;
585             _IO COVTE:1;
586             _IO OVBTE:1;
587             _IO OVATE:1;
588             _IO COVBERR:1;
589             _IO COVAERR:1;
590             _IO OVBERR:1;
591             _IO OVAERR:1;
592             _IO NSTDIS:1;
593              };
594   }INTCON1bits;
595
596   #define INTCON1    ((INTCON1bits*)(INTCON1_BASE))
597   /*****************************************************************************/
598   typedef union{
599     struct{
600             _IO INT0EP:1;
601             _IO INT1EP:1;
602             _IO INT2EP:1;
603             _IO INT3EP:1;
604             _IO INT4EP:1;
605             _IO :9;
606             _IO DISI:1;
607             _IO ALTIVT:1;
608             };
609   }INTCON2bits;
610
611   #define INTCON2    ((INTCON2bits*)(INTCON2_BASE))
612   /*****************************************************************************/
613   typedef union{
614     struct{
615             _IO INT0IF:1;
616             _IO IC1IF:1;
617             _IO OC1IF:1;
618             _IO T1IF:1;
619             _IO DMA0IF:1;
620             _IO IC2IF:1;
621             _IO OC2IF:1;
622             _IO T2IF:1;
623             _IO T3IF:1;
624             _IO SPI1EIF:1;
625             _IO SPI1IF:1;
626             _IO U1RXIF:1;
627             _IO U1TXIF:1;
628             _IO AD1IF:1;
629             _IO DMA1IF:1;
630               };
631   }IFS0bits;
632
633   #define IFS0    ((IFS0bits*)(IFS0_BASE))
634   /*****************************************************************************/
635   typedef union{
636       struct {
637                _IO SI2C1IF:1;
638                _IO MI2C1IF:1;
639                _IO :1;
640                _IO CNIF:1;
641                _IO INT1IF:1;
642                _IO :1;
643                _IO IC7IF:1;
644                _IO IC8IF:1;
645                _IO DMA2IF:1;
646                _IO OC3IF:1;
647                _IO OC4IF:1;
648                _IO T4IF:1;
649                _IO T5IF:1;
650                _IO INT2IF:1;
651                _IO U2RXIF:1;
652                _IO U2TXIF:1;
653                 };
654       struct {
655                _IO SI2CIF:1;
```

```
656             };
657   }IFS1bits;
658
659   #define IFS1    ((IFS1bits*)(IFS1_BASE))
660   /*****************************************************************************/
661   typedef union{
662     struct{
663             _IO SPI2EIF:1;
664             _IO SPI2IF:1;
665             _IO C1RXIF:1;
666             _IO C1IF:1;
667             _IO DMA3IF:1;
668             _IO IC3IF:1;
669             _IO IC4IF:1;
670             _IO IC5IF:1;
671             _IO IC6IF:1;
672             _IO OC5IF:1;
673             _IO OC6IF:1;
674             _IO OC7IF:1;
675             _IO OC8IF:1;
676             _IO :1;
677             _IO DMA4IF:1;
678             _IO T6IF:1;
679               };
680   }IFS2bits;
681
682   #define IFS2    ((IFS2bits*)(IFS2_BASE))
683   /*****************************************************************************/
684   typedef union{
685     struct{
686             _IO T7IF:1;
687             _IO SI2C2IF:1;
688             _IO MI2C2IF:1;
689             _IO T8IF:1;
690             _IO T9IF:1;
691             _IO INT3IF:1;
692             _IO INT4IF:1;
693             _IO :2;
694             _IO PWMIF:1;
695             _IO QEIIF:1;
696             _IO :2;
697             _IO DMA5IF:1;
698             _IO :1;
699             _IO FLTAIF:1;
700               };
701   }IFS3bits;
702
703   #define IFS3    ((IFS3bits*)(IFS3_BASE))
704   /*****************************************************************************/
705   typedef union{
706     struct{
707             _IO FLTBIF:1;
708             _IO U1EIF:1;
709             _IO U2EIF:1;
710             _IO :1;
711             _IO DMA6IF:1;
712             _IO DMA7IF:1;
713             _IO C1TXIF:1;
714              };
715   }IFS4bits;
716
717   #define IFS4    ((IFS4bits*)(IFS4_BASE))
718   /*****************************************************************************/
719   typedef union{
720     struct{
721             _IO INT0IE:1;
722             _IO IC1IE:1;
723             _IO OC1IE:1;
724             _IO T1IE:1;
725             _IO DMA0IE:1;
726             _IO IC2IE:1;
727             _IO OC2IE:1;
728             _IO T2IE:1;
```

```
729             _IO T3IE:1;
730             _IO SPI1EIE:1;
731             _IO SPI1IE:1;
732             _IO U1RXIE:1;
733             _IO U1TXIE:1;
734             _IO AD1IE:1;
735             _IO DMA1IE:1;
736               };
737   }IEC0bits;
738
739   #define IEC0    ((IEC0bits*)(IEC0_BASE))
740   /*****************************************************************************/
741   typedef union{
742       struct {
743                _IO SI2C1IE:1;
744                _IO MI2C1IE:1;
745                _IO :1;
746                _IO CNIE:1;
747                _IO INT1IE:1;
748                _IO :1;
749                _IO IC7IE:1;
750                _IO IC8IE:1;
751                _IO DMA2IE:1;
752                _IO OC3IE:1;
753                _IO OC4IE:1;
754                _IO T4IE:1;
755                _IO T5IE:1;
756                _IO INT2IE:1;
757                _IO U2RXIE:1;
758                _IO U2TXIE:1;
759                 };
760       struct {
761                _IO SI2CIE:1;
762                };
763   }IEC1bits;
764
765   #define IEC1    ((IEC1bits*)(IEC1_BASE))
766   /*****************************************************************************/
767   typedef union{
768     struct{
769             _IO SPI2EIE:1;
770             _IO SPI2IE:1;
771             _IO C1RXIE:1;
772             _IO C1IE:1;
773             _IO DMA3IE:1;
774             _IO IC3IE:1;
775             _IO IC4IE:1;
776             _IO IC5IE:1;
777             _IO IC6IE:1;
778             _IO OC5IE:1;
779             _IO OC6IE:1;
780             _IO OC7IE:1;
781             _IO OC8IE:1;
782             _IO :1;
783             _IO DMA4IE:1;
784             _IO T6IE:1;
785              };
786   }IEC2bits;
787
788   #define IEC2    ((IEC2bits*)(IEC2_BASE))
789   /*****************************************************************************/
790   typedef union{
791     struct{
792             _IO T7IE:1;
793             _IO SI2C2IE:1;
794             _IO MI2C2IE:1;
795             _IO T8IE:1;
796             _IO T9IE:1;
797             _IO INT3IE:1;
798             _IO INT4IE:1;
799             _IO :2;
800             _IO PWMIE:1;
801             _IO QEIIE:1;
```

```
802             _IO :2;
803             _IO DMA5IE:1;
804             _IO :1;
805             _IO FLTAIE:1;
806             };
807   }IEC3bits;
808
809   #define IEC3    ((IEC3bits*)(IEC3_BASE))
810   /*****************************************************************************/
811   typedef union{
812     struct{
813             _IO FLTBIE:1;
814             _IO U1EIE:1;
815             _IO U2EIE:1;
816             _IO :1;
817             _IO DMA6IE:1;
818             _IO DMA7IE:1;
819             _IO C1TXIE:1;
820             };
821   }IEC4bits;
822
823   #define IEC4    ((IEC4bits*)(IEC4_BASE))
824   /*****************************************************************************/
825   typedef union{
826       struct {
827                _IO INT0IP:3;
828                _IO :1;
829                _IO IC1IP:3;
830                _IO :1;
831                _IO OC1IP:3;
832                _IO :1;
833                _IO T1IP:3;
834                };
835       struct {
836                _IO INT0IP0:1;
837                _IO INT0IP1:1;
838                _IO INT0IP2:1;
839                _IO :1;
840                _IO IC1IP0:1;
841                _IO IC1IP1:1;
842                _IO IC1IP2:1;
843                _IO :1;
844                _IO OC1IP0:1;
845                _IO OC1IP1:1;
846                _IO OC1IP2:1;
847                _IO :1;
848                _IO T1IP0:1;
849                _IO T1IP1:1;
850                _IO T1IP2:1;
851                 };
852   }IPC0bits;
853
854   #define IPC0    ((IPC0bits*)(IPC0_BASE))
855   /*****************************************************************************/
856   typedef union{
857       struct {
858                _IO DMA0IP:3;
859                _IO :1;
860                _IO IC2IP:3;
861                _IO :1;
862                _IO OC2IP:3;
863                _IO :1;
864                _IO T2IP:3;
865                };
866       struct {
867                _IO DMA0IP0:1;
868                _IO DMA0IP1:1;
869                _IO DMA0IP2:1;
870                _IO :1;
871                _IO IC2IP0:1;
872                _IO IC2IP1:1;
873                _IO IC2IP2:1;
874                _IO :1;
```

```
875                 _IO OC2IP0:1;
876                 _IO OC2IP1:1;
877                 _IO OC2IP2:1;
878                 _IO :1;
879                 _IO T2IP0:1;
880                 _IO T2IP1:1;
881                 _IO T2IP2:1;
882                   };
883   }IPC1bits;
884
885   #define IPC1    ((IPC1bits*)(IPC1_BASE))
886   /*****************************************************************************/
887   typedef union{
888       struct {
889                 _IO T3IP:3;
890                 _IO :1;
891                 _IO SPI1EIP:3;
892                 _IO :1;
893                 _IO SPI1IP:3;
894                 _IO :1;
895                 _IO U1RXIP:3;
896                 };
897       struct {
898                 _IO T3IP0:1;
899                 _IO T3IP1:1;
900                 _IO T3IP2:1;
901                 _IO :1;
902                 _IO SPI1EIP0:1;
903                 _IO SPI1EIP1:1;
904                 _IO SPI1EIP2:1;
905                 _IO :1;
906                 _IO SPI1IP0:1;
907                 _IO SPI1IP1:1;
908                 _IO SPI1IP2:1;
909                 _IO :1;
910                 _IO U1RXIP0:1;
911                 _IO U1RXIP1:1;
912                 _IO U1RXIP2:1;
913                  };
914   }IPC2bits;
915
916   #define IPC2    ((IPC2bits*)(IPC2_BASE))
917   /*****************************************************************************/
918   typedef union{
919       struct {
920                 _IO U1TXIP:3;
921                 _IO :1;
922                 _IO AD1IP:3;
923                 _IO :1;
924                 _IO DMA1IP:3;
925                  };
926       struct {
927                 _IO U1TXIP0:1;
928                 _IO U1TXIP1:1;
929                 _IO U1TXIP2:1;
930                 _IO :1;
931                 _IO AD1IP0:1;
932                 _IO AD1IP1:1;
933                 _IO AD1IP2:1;
934                 _IO :1;
935                 _IO DMA1IP0:1;
936                 _IO DMA1IP1:1;
937                 _IO DMA1IP2:1;
938                  };
939   }IPC3bits;
940
941   #define IPC3    ((IPC3bits*)(IPC3_BASE))
942   /*****************************************************************************/
943   typedef union{
944       struct {
945                 _IO SI2C1IP:3;
946                 _IO :1;
947                 _IO MI2C1IP:3;
```

```
948                 _IO :5;
949                 _IO CNIP:3;
950                 };
951         struct {
952                 _IO SI2C1IP0:1;
953                 _IO SI2C1IP1:1;
954                 _IO SI2C1IP2:1;
955                 _IO :1;
956                 _IO MI2C1IP0:1;
957                 _IO MI2C1IP1:1;
958                 _IO MI2C1IP2:1;
959                 _IO :5;
960                 _IO CNIP0:1;
961                 _IO CNIP1:1;
962                 _IO CNIP2:1;
963                  };
964     }IPC4bits;
965
966     #define IPC4    ((IPC4bits*)(IPC4_BASE))
967     /*****************************************************************************/
968     typedef union{
969         struct {
970                 _IO INT1IP:3;
971                 _IO :5;
972                 _IO IC7IP:3;
973                 _IO :1;
974                 _IO IC8IP:3;
975                 };
976         struct {
977                 _IO INT1IP0:1;
978                 _IO INT1IP1:1;
979                 _IO INT1IP2:1;
980                 _IO :5;
981                 _IO IC7IP0:1;
982                 _IO IC7IP1:1;
983                 _IO IC7IP2:1;
984                 _IO :1;
985                 _IO IC8IP0:1;
986                 _IO IC8IP1:1;
987                 _IO IC8IP2:1;
988                  };
989     }IPC5bits;
990
991     #define IPC5    ((IPC5bits*)(IPC5_BASE))
992     /*****************************************************************************/
993     typedef union{
994         struct {
995                 _IO DMA2IP:3;
996                 _IO :1;
997                 _IO OC3IP:3;
998                 _IO :1;
999                 _IO OC4IP:3;
1000                _IO :1;
1001                _IO T4IP:3;
1002                };
1003        struct {
1004                _IO DMA2IP0:1;
1005                _IO DMA2IP1:1;
1006                _IO DMA2IP2:1;
1007                _IO :1;
1008                _IO OC3IP0:1;
1009                _IO OC3IP1:1;
1010                _IO OC3IP2:1;
1011                _IO :1;
1012                _IO OC4IP0:1;
1013                _IO OC4IP1:1;
1014                _IO OC4IP2:1;
1015                _IO :1;
1016                _IO T4IP0:1;
1017                _IO T4IP1:1;
1018                _IO T4IP2:1;
1019                 };
1020    }IPC6bits;
```

```
1021
1022    #define IPC6    ((IPC6bits*)(IPC6_BASE))
1023    /*****************************************************************************/
1024    typedef union{
1025        struct {
1026                _IO T5IP:3;
1027                _IO :1;
1028                _IO INT2IP:3;
1029                _IO :1;
1030                _IO U2RXIP:3;
1031                _IO :1;
1032                _IO U2TXIP:3;
1033                };
1034        struct {
1035                _IO T5IP0:1;
1036                _IO T5IP1:1;
1037                _IO T5IP2:1;
1038                _IO :1;
1039                _IO INT2IP0:1;
1040                _IO INT2IP1:1;
1041                _IO INT2IP2:1;
1042                _IO :1;
1043                _IO U2RXIP0:1;
1044                _IO U2RXIP1:1;
1045                _IO U2RXIP2:1;
1046                _IO :1;
1047                _IO U2TXIP0:1;
1048                _IO U2TXIP1:1;
1049                _IO U2TXIP2:1;
1050                 };
1051    }IPC7bits;
1052
1053    #define IPC7    ((IPC7bits*)(IPC7_BASE))
1054    /*****************************************************************************/
1055    typedef union{
1056        struct {
1057                _IO SPI2EIP:3;
1058                _IO :1;
1059                _IO SPI2IP:3;
1060                _IO :1;
1061                _IO C1RXIP:3;
1062                _IO :1;
1063                _IO C1IP:3;
1064                };
1065        struct {
1066                _IO SPI2EIP0:1;
1067                _IO SPI2EIP1:1;
1068                _IO SPI2EIP2:1;
1069                _IO :1;
1070                _IO SPI2IP0:1;
1071                _IO SPI2IP1:1;
1072                _IO SPI2IP2:1;
1073                _IO :1;
1074                _IO C1RXIP0:1;
1075                _IO C1RXIP1:1;
1076                _IO C1RXIP2:1;
1077                _IO :1;
1078                _IO C1IP0:1;
1079                _IO C1IP1:1;
1080                _IO C1IP2:1;
1081                 };
1082    }IPC8bits;
1083
1084    #define IPC8    ((IPC8bits*)(IPC8_BASE))
1085    /*****************************************************************************/
1086    typedef union{
1087        struct {
1088                _IO DMA3IP:3;
1089                _IO :1;
1090                _IO IC3IP:3;
1091                _IO :1;
1092                _IO IC4IP:3;
1093                _IO :1;
```

```
1094                _IO IC5IP:3;
1095                };
1096        struct {
1097                _IO DMA3IP0:1;
1098                _IO DMA3IP1:1;
1099                _IO DMA3IP2:1;
1100                _IO :1;
1101                _IO IC3IP0:1;
1102                _IO IC3IP1:1;
1103                _IO IC3IP2:1;
1104                _IO :1;
1105                _IO IC4IP0:1;
1106                _IO IC4IP1:1;
1107                _IO IC4IP2:1;
1108                _IO :1;
1109                _IO IC5IP0:1;
1110                _IO IC5IP1:1;
1111                _IO IC5IP2:1;
1112                  };
1113    }IPC9bits;
1114
1115    #define IPC9    ((IPC9bits*)(IPC9_BASE))
1116    /*****************************************************************************/
1117    typedef union{
1118        struct {
1119                _IO IC6IP:3;
1120                _IO :1;
1121                _IO OC5IP:3;
1122                _IO :1;
1123                _IO OC6IP:3;
1124                _IO :1;
1125                _IO OC7IP:3;
1126                 };
1127        struct {
1128                _IO IC6IP0:1;
1129                _IO IC6IP1:1;
1130                _IO IC6IP2:1;
1131                _IO :1;
1132                _IO OC5IP0:1;
1133                _IO OC5IP1:1;
1134                _IO OC5IP2:1;
1135                _IO :1;
1136                _IO OC6IP0:1;
1137                _IO OC6IP1:1;
1138                _IO OC6IP2:1;
1139                _IO :1;
1140                _IO OC7IP0:1;
1141                _IO OC7IP1:1;
1142                _IO OC7IP2:1;
1143                 };
1144    }IPC10bits;
1145
1146    #define IPC10    ((IPC10bits*)(IPC10_BASE))
1147    /*****************************************************************************/
1148    typedef union{
1149        struct {
1150                _IO OC8IP:3;
1151                _IO :5;
1152                _IO DMA4IP:3;
1153                _IO :1;
1154                _IO T6IP:3;
1155                };
1156        struct {
1157                _IO OC8IP0:1;
1158                _IO OC8IP1:1;
1159                _IO OC8IP2:1;
1160                _IO :5;
1161                _IO DMA4IP0:1;
1162                _IO DMA4IP1:1;
1163                _IO DMA4IP2:1;
1164                _IO :1;
1165                _IO T6IP0:1;
1166                _IO T6IP1:1;
```

```
1167                _IO T6IP2:1;
1168                };
1169    }IPC11bits;
1170
1171    #define IPC11    ((IPC11bits*)(IPC11_BASE))
1172    /*****************************************************************************/
1173    typedef union{
1174        struct {
1175                _IO T7IP:3;
1176                _IO :1;
1177                _IO SI2C2IP:3;
1178                _IO :1;
1179                _IO MI2C2IP:3;
1180                _IO :1;
1181                _IO T8IP:3;
1182                };
1183        struct {
1184                _IO T7IP0:1;
1185                _IO T7IP1:1;
1186                _IO T7IP2:1;
1187                _IO :1;
1188                _IO SI2C2IP0:1;
1189                _IO SI2C2IP1:1;
1190                _IO SI2C2IP2:1;
1191                _IO :1;
1192                _IO MI2C2IP0:1;
1193                _IO MI2C2IP1:1;
1194                _IO MI2C2IP2:1;
1195                _IO :1;
1196                _IO T8IP0:1;
1197                _IO T8IP1:1;
1198                _IO T8IP2:1;
1199                 };
1200    }IPC12bits;
1201
1202    #define IPC12    ((IPC12bits*)(IPC12_BASE))
1203    /*****************************************************************************/
1204    typedef union{
1205        struct {
1206                _IO T9IP:3;
1207                _IO :1;
1208                _IO INT3IP:3;
1209                _IO :1;
1210                _IO INT4IP:3;
1211                };
1212        struct {
1213                _IO T9IP0:1;
1214                _IO T9IP1:1;
1215                _IO T9IP2:1;
1216                _IO :1;
1217                _IO INT3IP0:1;
1218                _IO INT3IP1:1;
1219                _IO INT3IP2:1;
1220                _IO :1;
1221                _IO INT4IP0:1;
1222                _IO INT4IP1:1;
1223                _IO INT4IP2:1;
1224                 };
1225    }IPC13bits;
1226
1227    #define IPC13    ((IPC13bits*)(IPC13_BASE))
1228    /*****************************************************************************/
1229    typedef union{
1230        struct {
1231                _IO :4;
1232                _IO PWMIP:3;
1233                _IO :1;
1234                _IO QEIIP:3;
1235                };
1236        struct {
1237                _IO :4;
1238                _IO PWMIP0:1;
1239                _IO PWMIP1:1;
```

```
1240                _IO PWMIP2:1;
1241                _IO :1;
1242                _IO QEIIP0:1;
1243                _IO QEIIP1:1;
1244                _IO QEIIP2:1;
1245                 };
1246    }IPC14bits;
1247
1248    #define IPC14    ((IPC14bits*)(IPC14_BASE))
1249    /*****************************************************************************/
1250    typedef union{
1251        struct {
1252                _IO :4;
1253                _IO DMA5IP:3;
1254                _IO :5;
1255                _IO FLTAIP:3;
1256                };
1257        struct {
1258                _IO :4;
1259                _IO DMA5IP0:1;
1260                _IO DMA5IP1:1;
1261                _IO DMA5IP2:1;
1262                _IO :5;
1263                _IO FLTAIP0:1;
1264                _IO FLTAIP1:1;
1265                _IO FLTAIP2:1;
1266                 };
1267    }IPC15bits;
1268
1269    #define IPC15    ((IPC15bits*)(IPC15_BASE))
1270    /*****************************************************************************/
1271    typedef union{
1272        struct {
1273                _IO FLTBIP:3;
1274                _IO :1;
1275                _IO U1EIP:3;
1276                _IO :1;
1277                _IO U2EIP:3;
1278                };
1279        struct {
1280                _IO FLTBIP0:1;
1281                _IO FLTBIP1:1;
1282                _IO FLTBIP2:1;
1283                _IO :1;
1284                _IO U1EIP0:1;
1285                _IO U1EIP1:1;
1286                _IO U1EIP2:1;
1287                _IO :1;
1288                _IO U2EIP0:1;
1289                _IO U2EIP1:1;
1290                _IO U2EIP2:1;
1291                 };
1292    }IPC16bits;
1293
1294    #define IPC16    ((IPC16bits*)(IPC16_BASE))
1295    /*****************************************************************************/
1296    typedef union{
1297        struct {
1298                _IO DMA6IP:3;
1299                _IO :1;
1300                _IO DMA7IP:3;
1301                _IO :1;
1302                _IO C1TXIP:3;
1303                };
1304        struct {
1305                _IO DMA6IP0:1;
1306                _IO DMA6IP1:1;
1307                _IO DMA6IP2:1;
1308                _IO :1;
1309                _IO DMA7IP0:1;
1310                _IO DMA7IP1:1;
1311                _IO DMA7IP2:1;
1312                _IO :1;
```

```
1313                _IO C1TXIP0:1;
1314                _IO C1TXIP1:1;
1315                _IO C1TXIP2:1;
1316                  };
1317    }IPC17bits;
1318
1319    #define IPC17    ((IPC17bits*)(IPC17_BASE))
1320    /*****************************************************************************/
1321    typedef union{
1322        struct {
1323                _IO VECNUM:7;
1324                _IO :1;
1325                _IO ILR:4;
1326                };
1327        struct {
1328                _IO VECNUM0:1;
1329                _IO VECNUM1:1;
1330                _IO VECNUM2:1;
1331                _IO VECNUM3:1;
1332                _IO VECNUM4:1;
1333                _IO VECNUM5:1;
1334                _IO VECNUM6:1;
1335                _IO :1;
1336                _IO ILR0:1;
1337                _IO ILR1:1;
1338                _IO ILR2:1;
1339                _IO ILR3:1;
1340                  };
1341    }INTTREGbits;
1342
1343    #define INTTREG    ((INTTREGbits*)(INTTREG_BASE))
1344    /*****************************************************************************/
1345    //              STRUKTURE I REGISTRI ZA KONTROLU I STATUS TIMER-a:(31 registar)
1346    //                              (SVI TIMERI)
1347    /*****************************************************************************/
1348    typedef union
1349     {
1350      struct
1351       {
1352         _IO TMR:16;//BUG!!!
1353       };
1354      }TMR1bits;
1355
1356    #define TMR1    ((TMR1bits*)(TMR1_BASE))
1357    /*****************************************************************************/
1358    typedef union
1359     {
1360      struct
1361       {
1362         _IO PR:16;//BUG!!!
1363       };
1364      }PR1bits;
1365
1366    #define PR1    ((PR1bits*)(PR1_BASE))
1367    /*****************************************************************************/
1368    typedef union{
1369        struct {
1370                _IO :1;
1371                _IO TCS:1;
1372                _IO TSYNC:1;
1373                _IO :1;
1374                _IO TCKPS:2;
1375                _IO TGATE:1;
1376                _IO :6;
1377                _IO TSIDL:1;
1378                _IO :1;
1379                _IO TON:1;
1380                  };
1381        struct {
1382                _IO :4;
1383                _IO TCKPS0:1;
1384                _IO TCKPS1:1;
1385                };
```

```
}T1CONbits;

#define T1CON    ((T1CONbits*)(T1CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO TMR:16;//BUG!!!
    };
  }TMR2bits;

#define TMR2   ((TMR2bits*)(TMR2_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO TMRHLD:16;//BUG!!!
    };
  }TMR3HLDbits;

#define TMR3HLD   ((TMR3HLDbits*)(TMR3HLD_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO TMR:16;//BUG!!!
    };
  }TMR3bits;

#define TMR3   ((TMR3bits*)(TMR3_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO PR:16;//BUG!!!
    };
  }PR2bits;

#define PR2   ((PR2bits*)(PR2_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO PR:16;//BUG!!!
    };
  }PR3bits;

#define PR3   ((PR3bits*)(PR3_BASE))
/*****************************************************************************/
typedef union{
    struct {
            _IO :1;
            _IO TCS:1;
            _IO :1;
            _IO T32:1;
            _IO TCKPS:2;
            _IO TGATE:1;
            _IO :6;
            _IO TSIDL:1;
            _IO :1;
            _IO TON:1;
            };
    struct {
            _IO :4;
            _IO TCKPS0:1;
            _IO TCKPS1:1;
            };
}T2CONbits;
```

```
1459
1460  #define T2CON    ((T2CONbits*)(T2CON_BASE))
1461  /*****************************************************************************/
1462  typedef union{
1463      struct {
1464               _IO :1;
1465               _IO TCS:1;
1466               _IO :2;
1467               _IO TCKPS:2;
1468               _IO TGATE:1;
1469               _IO :6;
1470               _IO TSIDL:1;
1471               _IO :1;
1472               _IO TON:1;
1473              };
1474      struct {
1475               _IO :4;
1476               _IO TCKPS0:1;
1477               _IO TCKPS1:1;
1478              };
1479  }T3CONbits;
1480
1481  #define T3CON    ((T3CONbits*)(T3CON_BASE))
1482  /*****************************************************************************/
1483  typedef union
1484   {
1485    struct
1486     {
1487       _IO TMR:16;//BUG!!!
1488      };
1489    }TMR4bits;
1490
1491  #define TMR4   ((TMR4bits*)(TMR4_BASE))
1492  /*****************************************************************************/
1493  typedef union
1494   {
1495    struct
1496     {
1497       _IO TMRHLD:16;//BUG!!!
1498      };
1499    }TMR5HLDbits;
1500
1501  #define TMR5HLD   ((TMR5HLDbits*)(TMR5HLD_BASE))
1502  /*****************************************************************************/
1503  typedef union
1504   {
1505    struct
1506     {
1507       _IO TMR:16;//BUG!!!
1508      };
1509    }TMR5bits;
1510
1511  #define TMR5   ((TMR5bits*)(TMR5_BASE))
1512  /*****************************************************************************/
1513  typedef union
1514   {
1515    struct
1516     {
1517       _IO PR:16;//BUG!!!
1518      };
1519    }PR4bits;
1520
1521  #define PR4   ((PR4bits*)(PR4_BASE))
1522  /*****************************************************************************/
1523  typedef union
1524   {
1525    struct
1526     {
1527       _IO PR:16;//BUG!!!
1528      };
1529    }PR5bits;
1530
1531  #define PR5   ((PR5bits*)(PR5_BASE))
```

```
1532  /*****************************************************************************/
1533  typedef union{
1534      struct {
1535              _IO :1;
1536              _IO TCS:1;
1537              _IO :1;
1538              _IO T32:1;
1539              _IO TCKPS:2;
1540              _IO TGATE:1;
1541              _IO :6;
1542              _IO TSIDL:1;
1543              _IO :1;
1544              _IO TON:1;
1545               };
1546      struct {
1547              _IO :4;
1548              _IO TCKPS0:1;
1549              _IO TCKPS1:1;
1550              };
1551  }T4CONbits;
1552
1553  #define T4CON     ((T4CONbits*)(T4CON_BASE))
1554  /*****************************************************************************/
1555  typedef union{
1556      struct {
1557              _IO :1;
1558              _IO TCS:1;
1559              _IO :2;
1560              _IO TCKPS:2;
1561              _IO TGATE:1;
1562              _IO :6;
1563              _IO TSIDL:1;
1564              _IO :1;
1565              _IO TON:1;
1566              };
1567      struct {
1568              _IO :4;
1569              _IO TCKPS0:1;
1570              _IO TCKPS1:1;
1571              };
1572  }T5CONbits;
1573
1574  #define T5CON     ((T5CONbits*)(T5CON_BASE))
1575  /*****************************************************************************/
1576  typedef union
1577   {
1578    struct
1579     {
1580       _IO TMR:16;//BUG!!!
1581      };
1582    }TMR6bits;
1583
1584  #define TMR6    ((TMR6bits*)(TMR6_BASE))
1585  /*****************************************************************************/
1586  typedef union
1587   {
1588    struct
1589     {
1590       _IO TMRHLD:16;//BUG!!!
1591      };
1592    }TMR7HLDbits;
1593
1594  #define TMR7HLD    ((TMR7HLDbits*)(TMR7HLD_BASE))
1595  /*****************************************************************************/
1596  typedef union
1597   {
1598    struct
1599     {
1600       _IO TMR:16;//BUG!!!
1601      };
1602    }TMR7bits;
1603
1604  #define TMR7    ((TMR7bits*)(TMR7_BASE))
```

```
1605  /*****************************************************************************/
1606  typedef union
1607   {
1608    struct
1609     {
1610       _IO PR:16;//BUG!!!
1611      };
1612    }PR6bits;
1613
1614  #define PR6    ((PR6bits*)(PR6_BASE))
1615  /*****************************************************************************/
1616  typedef union
1617   {
1618    struct
1619     {
1620       _IO PR:16;//BUG!!!
1621      };
1622    }PR7bits;
1623
1624  #define PR7    ((PR7bits*)(PR7_BASE))
1625  /*****************************************************************************/
1626  typedef union{
1627      struct {
1628               _IO :1;
1629               _IO TCS:1;
1630               _IO :1;
1631               _IO T32:1;
1632               _IO TCKPS:2;
1633               _IO TGATE:1;
1634               _IO :6;
1635               _IO TSIDL:1;
1636               _IO :1;
1637               _IO TON:1;
1638                };
1639      struct {
1640               _IO :4;
1641               _IO TCKPS0:1;
1642               _IO TCKPS1:1;
1643               };
1644  }T6CONbits;
1645
1646  #define T6CON     ((T6CONbits*)(T6CON_BASE))
1647  /*****************************************************************************/
1648  typedef union{
1649      struct {
1650               _IO :1;
1651               _IO TCS:1;
1652               _IO :2;
1653               _IO TCKPS:2;
1654               _IO TGATE:1;
1655               _IO :6;
1656               _IO TSIDL:1;
1657               _IO :1;
1658               _IO TON:1;
1659               };
1660      struct {
1661               _IO :4;
1662               _IO TCKPS0:1;
1663               _IO TCKPS1:1;
1664               };
1665  }T7CONbits;
1666
1667  #define T7CON     ((T7CONbits*)(T7CON_BASE))
1668  /*****************************************************************************/
1669  typedef union
1670   {
1671    struct
1672     {
1673       _IO TMR:16;//BUG!!!
1674      };
1675    }TMR8bits;
1676
1677  #define TMR8    ((TMR8bits*)(TMR8_BASE))
```

```
1678  /*****************************************************************************/
1679  typedef union
1680   {
1681    struct
1682     {
1683       _IO TMRHLD:16;//BUG!!!
1684      };
1685    }TMR9HLDbits;
1686
1687  #define TMR9HLD   ((TMR9HLDbits*)(TMR9HLD_BASE))
1688  /*****************************************************************************/
1689  typedef union
1690   {
1691    struct
1692     {
1693       _IO TMR:16;//BUG!!!
1694      };
1695    }TMR9bits;
1696
1697  #define TMR9   ((TMR9bits*)(TMR9_BASE))
1698  /*****************************************************************************/
1699  typedef union
1700   {
1701    struct
1702     {
1703       _IO PR:16;//BUG!!!
1704      };
1705    }PR8bits;
1706
1707  #define PR8   ((PR8bits*)(PR8_BASE))
1708  /*****************************************************************************/
1709  typedef union
1710   {
1711    struct
1712     {
1713       _IO PR:16;//BUG!!!
1714      };
1715    }PR9bits;
1716
1717  #define PR9   ((PR9bits*)(PR9_BASE))
1718  /*****************************************************************************/
1719  typedef union{
1720      struct {
1721               _IO :1;
1722               _IO TCS:1;
1723               _IO :1;
1724               _IO T32:1;
1725               _IO TCKPS:2;
1726               _IO TGATE:1;
1727               _IO :6;
1728               _IO TSIDL:1;
1729               _IO :1;
1730               _IO TON:1;
1731              };
1732      struct {
1733               _IO :4;
1734               _IO TCKPS0:1;
1735               _IO TCKPS1:1;
1736              };
1737  }T8CONbits;
1738
1739  #define T8CON    ((T8CONbits*)(T8CON_BASE))
1740  /*****************************************************************************/
1741  typedef union{
1742      struct {
1743               _IO :1;
1744               _IO TCS:1;
1745               _IO :2;
1746               _IO TCKPS:2;
1747               _IO TGATE:1;
1748               _IO :6;
1749               _IO TSIDL:1;
1750               _IO :1;
```

```
1751                _IO TON:1;
1752                };
1753        struct {
1754                _IO :4;
1755                _IO TCKPS0:1;
1756                _IO TCKPS1:1;
1757                };
1758    }T9CONbits;
1759
1760    #define T9CON    ((T9CONbits*)(T9CON_BASE))
1761    /*****************************************************************************/
1762    //              STRUKTURE I REGISTRI ZA INPUT CAPTURE MODULA:(16 registara)
1763    //
1764    /*****************************************************************************/
1765    typedef union
1766     {
1767      struct
1768       {
1769         _IO ICBUF:16;//BUG!!!
1770       };
1771      }IC1BUFbits;
1772
1773    #define IC1BUF   ((IC1BUFbits*)(IC1BUF_BASE))
1774    /*****************************************************************************/
1775    typedef union{
1776        struct {
1777                _IO ICM:3;
1778                _IO ICBNE:1;
1779                _IO ICOV:1;
1780                _IO ICI:2;
1781                _IO ICTMR:1;
1782                _IO :5;
1783                _IO ICSIDL:1;
1784                 };
1785        struct {
1786                _IO ICM0:1;
1787                _IO ICM1:1;
1788                _IO ICM2:1;
1789                _IO :2;
1790                _IO ICI0:1;
1791                _IO ICI1:1;
1792                };
1793    }IC1CONbits;
1794
1795    #define IC1CON   ((IC1CONbits*)(IC1CON_BASE))
1796    /*****************************************************************************/
1797    typedef union
1798     {
1799      struct
1800       {
1801         _IO ICBUF:16;//BUG!!!
1802       };
1803      }IC2BUFbits;
1804
1805    #define IC2BUF   ((IC2BUFbits*)(IC2BUF_BASE))
1806    /*****************************************************************************/
1807    typedef union {
1808        struct {
1809                  _IO ICM:3;
1810                _IO ICBNE:1;
1811                 _IO ICOV:1;
1812                  _IO ICI:2;
1813                _IO ICTMR:1;
1814                      _IO :5;
1815               _IO ICSIDL:1;
1816                 };
1817        struct {
1818                _IO ICM0:1;
1819                _IO ICM1:1;
1820                _IO ICM2:1;
1821                     _IO :2;
1822                _IO ICI0:1;
1823                _IO ICI1:1;
```

```
            };
}IC2CONbits;

#define IC2CON   ((IC2CONbits*)(IC2CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO ICBUF:16;//BUG!!!
    };
  }IC3BUFbits;

#define IC3BUF   ((IC3BUFbits*)(IC3BUF_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;
             };
}IC3CONbits;

#define IC3CON   ((IC3CONbits*)(IC3CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO ICBUF:16;//BUG!!!
    };
  }IC4BUFbits;

#define IC4BUF   ((IC4BUFbits*)(IC4BUF_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;
             };
}IC4CONbits;

#define IC4CON   ((IC4CONbits*)(IC4CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
```

```
1897        _IO ICBUF:16;//BUG!!!
1898        };
1899      }IC5BUFbits;
1900
1901    #define IC5BUF    ((IC5BUFbits*)(IC5BUF_BASE))
1902    /*****************************************************************************/
1903    typedef union {
1904        struct {
1905                _IO ICM:3;
1906                _IO ICBNE:1;
1907                _IO ICOV:1;
1908                _IO ICI:2;
1909                _IO ICTMR:1;
1910                _IO :5;
1911                _IO ICSIDL:1;
1912               };
1913        struct {
1914                _IO ICM0:1;
1915                _IO ICM1:1;
1916                _IO ICM2:1;
1917                _IO :2;
1918                _IO ICI0:1;
1919                _IO ICI1:1;
1920              };
1921    }IC5CONbits;
1922
1923    #define IC5CON    ((IC5CONbits*)(IC5CON_BASE))
1924    /*****************************************************************************/
1925    typedef union
1926     {
1927      struct
1928       {
1929        _IO ICBUF:16;//BUG!!!
1930        };
1931      }IC6BUFbits;
1932
1933    #define IC6BUF    ((IC6BUFbits*)(IC6BUF_BASE))
1934    /*****************************************************************************/
1935    typedef union {
1936        struct {
1937                _IO ICM:3;
1938                _IO ICBNE:1;
1939                _IO ICOV:1;
1940                _IO ICI:2;
1941                _IO ICTMR:1;
1942                _IO :5;
1943                _IO ICSIDL:1;
1944               };
1945        struct {
1946                _IO ICM0:1;
1947                _IO ICM1:1;
1948                _IO ICM2:1;
1949                    _IO :2;
1950                _IO ICI0:1;
1951                _IO ICI1:1;
1952                };
1953    }IC6CONbits;
1954
1955    #define IC6CON    ((IC6CONbits*)(IC6CON_BASE))
1956    /*****************************************************************************/
1957    typedef union
1958     {
1959      struct
1960       {
1961        _IO ICBUF:16;//BUG!!!
1962        };
1963      }IC7BUFbits;
1964
1965    #define IC7BUF    ((IC7BUFbits*)(IC7BUF_BASE))
1966    /*****************************************************************************/
1967    typedef union {
1968        struct {
1969                _IO ICM:3;
```

```
1970                _IO ICBNE:1;
1971                _IO ICOV:1;
1972                _IO ICI:2;
1973                _IO ICTMR:1;
1974                _IO :5;
1975                _IO ICSIDL:1;
1976                };
1977        struct {
1978                _IO ICM0:1;
1979                _IO ICM1:1;
1980                _IO ICM2:1;
1981                _IO :2;
1982                _IO ICI0:1;
1983                _IO ICI1:1;
1984                };
1985    }IC7CONbits;
1986
1987    #define IC7CON    ((IC7CONbits*)(IC7CON_BASE))
1988    /*****************************************************************************/
1989    typedef union
1990     {
1991      struct
1992       {
1993        _IO IC8BUFR:16;//BUG!!!
1994       };
1995      }IC8BUFbits;
1996
1997    #define IC8BUF    ((IC8BUFbits*)(IC8BUF_BASE))
1998    /*****************************************************************************/
1999    typedef union {
2000        struct {
2001                _IO ICM:3;
2002                _IO ICBNE:1;
2003                _IO ICOV:1;
2004                _IO ICI:2;
2005                _IO ICTMR:1;
2006                _IO :5;
2007                _IO ICSIDL:1;
2008                };
2009        struct {
2010                _IO ICM0:1;
2011                _IO ICM1:1;
2012                _IO ICM2:1;
2013                _IO :2;
2014                _IO ICI0:1;
2015                _IO ICI1:1;
2016                };
2017    }IC8CONbits;
2018
2019    #define IC8CON    ((IC8CONbits*)(IC8CON_BASE))
2020    /*****************************************************************************/
2021    //              STRUKTURE I REGISTRI ZA OUTPUT COMPARE MODUL:
2022    //                    (24 registra=8x3 registra)
2023    /*****************************************************************************/
2024    typedef union
2025     {
2026      struct
2027       {
2028        _IO OCRS:16;
2029       };
2030      }OC1RSbits;
2031
2032    #define OC1RS    ((OC1RSbits*)(OC1RS_BASE))
2033    /*****************************************************************************/
2034    typedef union
2035     {
2036      struct
2037       {
2038        _IO OCR:16;
2039       };
2040      }OC1Rbits;
2041
2042    #define OC1R    ((OC1Rbits*)(OC1R_BASE))
```

```
2043  /*****************************************************************************/
2044  typedef union{
2045      struct {
2046               _IO OCM:3;
2047               _IO OCTSEL:1;
2048               _IO OCFLT:1;
2049               _IO :8;
2050               _IO OCSIDL:1;
2051                };
2052      struct {
2053               _IO OCM0:1;
2054               _IO OCM1:1;
2055               _IO OCM2:1;
2056              };
2057  }OC1CONbits;
2058
2059  #define OC1CON    ((OC1CONbits*)(OC1CON_BASE))
2060  /*****************************************************************************/
2061  typedef union
2062   {
2063    struct
2064     {
2065       _IO OCRS:16;//BUG!!!
2066      };
2067    }OC2RSbits;
2068
2069  #define OC2RS    ((OC2RSbits*)(OC2RS_BASE))
2070  /*****************************************************************************/
2071  typedef union
2072   {
2073    struct
2074     {
2075       _IO OCR:16;//BUG!!!
2076      };
2077    }OC2Rbits;
2078
2079  #define OC2R    ((OC2Rbits*)(OC2R_BASE))
2080  /*****************************************************************************/
2081  typedef union{
2082      struct {
2083               _IO OCM:3;
2084               _IO OCTSEL:1;
2085               _IO OCFLT:1;
2086               _IO :8;
2087               _IO OCSIDL:1;
2088                };
2089      struct {
2090               _IO OCM0:1;
2091               _IO OCM1:1;
2092               _IO OCM2:1;
2093                };
2094  }OC2CONbits;
2095
2096  #define OC2CON    ((OC2CONbits*)(OC2CON_BASE))
2097  /*****************************************************************************/
2098  typedef union
2099   {
2100    struct
2101     {
2102       _IO OCRS:16;//BUG!!!
2103      };
2104    }OC3RSbits;
2105
2106  #define OC3RS    ((OC3RSbits*)(OC3RS_BASE))
2107  /*****************************************************************************/
2108  typedef union
2109   {
2110    struct
2111     {
2112       _IO OCR:16;//BUG!!!
2113      };
2114    }OC3Rbits;
2115
```

```
#define OC3R   ((OC3Rbits*)(OC3R_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;
             };
}OC3CONbits;

#define OC3CON   ((OC3CONbits*)(OC3CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO OCRS:16;//BUG!!!
    };
  }OC4RSbits;

#define OC4RS   ((OC4RSbits*)(OC4RS_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO OCR:16;//BUG!!!
    };
  }OC4Rbits;

#define OC4R   ((OC4Rbits*)(OC4R_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;
            };
}OC4CONbits;

#define OC4CON   ((OC4CONbits*)(OC4CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
    _IO OCRS:16;//BUG!!!
    };
  }OC5RSbits;

#define OC5RS   ((OC5RSbits*)(OC5RS_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
     _IO OCR:16;//BUG!!!
    };
  }OC5Rbits;
```

```
2189
2190  #define OC5R   ((OC5Rbits*)(OC5R_BASE))
2191  /*****************************************************************************/
2192  typedef union{
2193      struct {
2194               _IO OCM:3;
2195               _IO OCTSEL:1;
2196               _IO OCFLT:1;
2197               _IO :8;
2198               _IO OCSIDL:1;
2199               };
2200      struct {
2201               _IO OCM0:1;
2202               _IO OCM1:1;
2203               _IO OCM2:1;
2204               };
2205  }OC5CONbits;
2206
2207  #define OC5CON   ((OC5CONbits*)(OC5CON_BASE))
2208  /*****************************************************************************/
2209  typedef union
2210   {
2211    struct
2212     {
2213      _IO OCRS:16;//BUG!!!
2214     };
2215    }OC6RSbits;
2216
2217  #define OC6RS   ((OC6RSbits*)(OC6RS_BASE))
2218  /*****************************************************************************/
2219  typedef union
2220   {
2221    struct
2222     {
2223      _IO OCR:16;//BUG!!!
2224     };
2225    }OC6Rbits;
2226
2227  #define OC6R   ((OC6Rbits*)(OC6R_BASE))
2228  /*****************************************************************************/
2229  typedef union{
2230      struct {
2231               _IO OCM:3;
2232               _IO OCTSEL:1;
2233               _IO OCFLT:1;
2234               _IO :8;
2235               _IO OCSIDL:1;
2236               };
2237      struct {
2238               _IO OCM0:1;
2239               _IO OCM1:1;
2240               _IO OCM2:1;
2241               };
2242  }OC6CONbits;
2243
2244  #define OC6CON   ((OC6CONbits*)(OC6CON_BASE))
2245  /*****************************************************************************/
2246  typedef union
2247   {
2248    struct
2249     {
2250       _IO OCRS:16;//BUG!!!
2251      };
2252    }OC7RSbits;
2253
2254  #define OC7RS   ((OC7RSbits*)(OC7RS_BASE))
2255  /*****************************************************************************/
2256  typedef union
2257   {
2258    struct
2259     {
2260       _IO OCR:16;//BUG!!!
2261      };
```

```
  }OC7Rbits;

#define OC7R   ((OC7Rbits*)(OC7R_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;
             };
}OC7CONbits;

#define OC7CON   ((OC7CONbits*)(OC7CON_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
    _IO OCRS:16;//BUG!!!
    };
  }OC8RSbits;

#define OC8RS   ((OC8RSbits*)(OC8RS_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
    _IO OCR:16;//BUG!!!
    };
  }OC8Rbits;

#define OC8R   ((OC8Rbits*)(OC8R_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;
             };
}OC8CONbits;

#define OC8CON   ((OC8CONbits*)(OC8CON_BASE))
/*****************************************************************************/
//              8-IZLAZNI MOTOR CONTROL PWM MODUL:(15 registara)
//
/*****************************************************************************/
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;
```

```
2335                _IO PTMOD1: 1;
2336                _IO PTCKPS0:1;
2337                _IO PTCKPS1:1;
2338                _IO PTOPS0: 1;
2339                _IO PTOPS1: 1;
2340                _IO PTOPS2: 1;
2341                _IO PTOPS3: 1;
2342                };
2343    }P1TCONbits;
2344
2345    #define P1TCON    ((P1TCONbits*)(P1TCON_BASE))
2346    /*****************************************************************************/
2347    typedef union{
2348      struct{
2349              _IO PTMR:15;
2350              _IO PTDIR:1;
2351              };
2352    }P1TMRbits;
2353
2354    #define P1TMR    ((P1TMRbits*)(P1TMR_BASE))
2355    /*****************************************************************************/
2356    typedef union{
2357      struct{
2358              _IO PTPER:15;
2359              };
2360    }P1TPERbits;
2361
2362    #define P1TPER    ((P1TPERbits*)(P1TPER_BASE))
2363    /*****************************************************************************/
2364    typedef union{
2365      struct{
2366              _IO SEVTCMP:15;
2367              _IO SEVTDIR:1;
2368              };
2369    }P1SECMPbits;
2370
2371    #define P1SECMP    ((P1SECMPbits*)(P1SECMP_BASE))
2372    /*****************************************************************************/
2373    typedef union{
2374        struct{
2375                _IO PENL:   4;
2376                _IO PENH:   4;
2377                _IO PMOD:   4;
2378                };
2379        struct {
2380                _IO PEN1L: 1;
2381                _IO PEN2L: 1;
2382                _IO PEN3L: 1;
2383                _IO PEN4L: 1;
2384                _IO PEN1H: 1;
2385                _IO PEN2H: 1;
2386                _IO PEN3H: 1;
2387                _IO PEN4H: 1;
2388                _IO PMOD1: 1;
2389                _IO PMOD2: 1;
2390                _IO PMOD3: 1;
2391                _IO PMOD4: 1;
2392                };
2393        struct {
2394                _IO :      8;
2395                _IO PTMOD1:1;
2396                _IO PTMOD2:1;
2397                _IO PTMOD3:1;
2398                _IO PTMOD4:1;
2399                };
2400    }PWM1CON1bits;
2401
2402    #define PWM1CON1    ((PWM1CON1bits*)(PWM1CON1_BASE))
2403    /*****************************************************************************/
2404    typedef union{
2405        struct {
2406                _IO UDIS:   1;
2407                _IO OSYNC:  1;
```

```
2408                _IO IUE:    1;
2409                _IO :       5;
2410                _IO SEVOPS: 4;
2411                };
2412        struct {
2413                _IO :       8;
2414                _IO SEVOPS0:1;
2415                _IO SEVOPS1:1;
2416                _IO SEVOPS2:1;
2417                _IO SEVOPS3:1;
2418                };
2419    }PWM1CON2bits;
2420
2421    #define PWM1CON2   ((PWM1CON2bits*)(PWM1CON2_BASE))
2422    /*****************************************************************************/
2423    typedef union{
2424        struct {
2425                _IO DTA:    6;
2426                _IO DTAPS:  2;
2427                _IO DTB:    6;
2428                _IO DTBPS:  2;
2429                };
2430        struct {
2431                _IO DTA0:   1;
2432                _IO DTA1:   1;
2433                _IO DTA2:   1;
2434                _IO DTA3:   1;
2435                _IO DTA4:   1;
2436                _IO DTA5:   1;
2437                _IO DTAPS0: 1;
2438                _IO DTAPS1: 1;
2439                _IO DTB0:   1;
2440                _IO DTB1:   1;
2441                _IO DTB2:   1;
2442                _IO DTB3:   1;
2443                _IO DTB4:   1;
2444                _IO DTB5:   1;
2445                _IO DTBPS0: 1;
2446                _IO DTBPS1: 1;
2447               };
2448    }P1DTCON1bits;
2449
2450    #define P1DTCON1   ((P1DTCON1bits*)(P1DTCON1_BASE))
2451    /*****************************************************************************/
2452    typedef union{
2453       struct{
2454              _IO DTS:   8;
2455              };
2456       struct{
2457              _IO DTS1:  2;
2458              _IO DTS2:  2;
2459              _IO DTS3:  2;
2460              _IO DTS4:  2;
2461              };
2462       struct {
2463                _IO DTS1I:1;
2464                _IO DTS1A:1;
2465                _IO DTS2I:1;
2466                _IO DTS2A:1;
2467                _IO DTS3I:1;
2468                _IO DTS3A:1;
2469                _IO DTS4I:1;
2470                _IO DTS4A:1;
2471                };
2472    }P1DTCON2bits;
2473
2474    #define P1DTCON2   ((P1DTCON2bits*)(P1DTCON2_BASE))
2475    /*****************************************************************************/
2476    typedef union{
2477      struct{
2478             _IO FAEN:  4;
2479             _IO :      4;
2480             _IO FAOV:  8;
```

```
2481            };
2482      struct{
2483            _IO FAEN1: 1;
2484            _IO FAEN2: 1;
2485            _IO FAEN3: 1;
2486            _IO FAEN4: 1;
2487            _IO :      3;
2488            _IO FLTAM: 1;
2489            _IO FAOV1L:1;
2490            _IO FAOV1H:1;
2491            _IO FAOV2L:1;
2492            _IO FAOV2H:1;
2493            _IO FAOV3L:1;
2494            _IO FAOV3H:1;
2495            _IO FAOV4L:1;
2496            _IO FAOV4H:1;
2497             };
2498   }P1FLTACONbits;
2499
2500   #define P1FLTACON   ((P1FLTACONbits*)(P1FLTACON_BASE))
2501   /*****************************************************************************/
2502   typedef union{
2503      struct{
2504            _IO FBEN:  4;
2505            _IO :      4;
2506            _IO FBOV:  8;
2507            };
2508      struct{
2509            _IO FBEN1: 1;
2510            _IO FBEN2: 1;
2511            _IO FBEN3: 1;
2512            _IO FBEN4: 1;
2513            _IO :      3;
2514            _IO FLTBM: 1;
2515            _IO FBOV1L:1;
2516            _IO FBOV1H:1;
2517            _IO FBOV2L:1;
2518            _IO FBOV2H:1;
2519            _IO FBOV3L:1;
2520            _IO FBOV3H:1;
2521            _IO FBOV4L:1;
2522            _IO FBOV4H:1;
2523             };
2524   }P1FLTBCONbits;
2525
2526   #define P1FLTBCON   ((P1FLTBCONbits*)(P1FLTBCON_BASE))
2527   /*****************************************************************************/
2528   typedef union{
2529      struct{
2530            _IO POUT6:6;
2531            _IO      :2;
2532            _IO POVD6:6;
2533            _IO      :2;
2534            };
2535      struct{
2536            _IO POUT:8;
2537            _IO POVD:8;
2538            };
2539      struct{
2540           _IO POUT1L:1;
2541           _IO POUT1H:1;
2542           _IO POUT2L:1;
2543           _IO POUT2H:1;
2544           _IO POUT3L:1;
2545           _IO POUT3H:1;
2546           _IO POUT4L:1;
2547           _IO POUT4H:1;
2548           _IO POVD1L:1;
2549           _IO POVD1H:1;
2550           _IO POVD2L:1;
2551           _IO POVD2H:1;
2552           _IO POVD3L:1;
2553           _IO POVD3H:1;
```

```
2554          _IO POVD4L:1;
2555          _IO POVD4H:1;
2556              };
2557   }P1OVDCONbits;
2558
2559   #define P1OVDCON    ((P1OVDCONbits*)(P1OVDCON_BASE))
2560   /*****************************************************************************/
2561   typedef union
2562    {
2563     struct
2564      {
2565        _IO PDC1:16;//BUG!!!
2566       };
2567     }P1DC1bits;
2568
2569   #define P1DC1    ((P1DC1bits*)(P1DC1_BASE))
2570   /*****************************************************************************/
2571   typedef union
2572    {
2573     struct
2574      {
2575        _IO PDC2:16;//BUG!!!
2576       };
2577     }P1DC2bits;
2578
2579   #define P1DC2    ((P1DC2bits*)(P1DC2_BASE))
2580   /*****************************************************************************/
2581   typedef union
2582    {
2583     struct
2584      {
2585        _IO PDC3:16;//BUG!!!
2586       };
2587     }P1DC3bits;
2588
2589   #define P1DC3    ((P1DC3bits*)(P1DC3_BASE))
2590   /*****************************************************************************/
2591   typedef union
2592    {
2593     struct
2594      {
2595        _IO PDC4:16;//BUG!!!
2596       };
2597     }P1DC4bits;
2598
2599   #define P1DC4    ((P1DC4bits*)(P1DC4_BASE))
2600   /*****************************************************************************/
2601   //              MOTION FEEDBACK MODUL (KVADRATURNI ENKODER):(4 registra)
2602   //
2603   /*****************************************************************************/
2604   typedef union {
2605       struct {
2606                _IO UPDN_SRC:  1;
2607                _IO TQCS:      1;
2608                _IO POSRES:    1;
2609                _IO TQCKPS0:   1;
2610                _IO TQCKPS1:   1;
2611                _IO TQGATE:    1;
2612                _IO PCDOUT:    1;
2613                _IO SWPAB:     1;
2614                _IO QEIM0:     1;
2615                _IO QEIM1:     1;
2616                _IO QEIM2:     1;
2617                _IO UPDN:      1;
2618                _IO INDX:      1;
2619                _IO QEISIDL:   1;
2620                _IO :          1;
2621                _IO CNTERR:    1;
2622                 };
2623       struct {
2624                _IO :          3;
2625                _IO TQCKPS:    2;
2626                _IO :          3;
```

```
2627                _IO QEIM:      3;
2628               };
2629   }QEI1CONbits;
2630
2631   #define QEI1CON    ((QEI1CONbits*)(QEI1CON_BASE))
2632   /*****************************************************************************/
2633   typedef union {
2634       struct {
2635                _IO :      4;
2636                _IO QECK0: 1;
2637                _IO QECK1: 1;
2638                _IO QECK2: 1;
2639                _IO QEOUT: 1;
2640                _IO CEID:  1;
2641                _IO IMV0:  1;
2642                _IO IMV1:  1;
2643               };
2644       struct {
2645                _IO :      4;
2646                _IO QECK:  3;
2647                _IO :      2;
2648                _IO IMV:   2;
2649               };
2650   }DFLT1CONbits;
2651
2652   #define DFLT1CON    ((DFLT1CONbits*)(DFLT1CON_BASE))
2653   /*****************************************************************************/
2654   typedef union
2655    {
2656     struct
2657      {
2658        _IO POSCNT:16;//BUG!!!
2659      };
2660     }POS1CNTbits;
2661
2662   #define POS1CNT    ((POS1CNTbits*)(POS1CNT_BASE))
2663   /*****************************************************************************/
2664     typedef union
2665      {
2666       struct
2667         {
2668           _IO MAXCNT:16;//BUG!!!
2669          };
2670     }MAX1CNTbits;
2671
2672   #define MAX1CNT    ((MAX1CNTbits*)(MAX1CNT_BASE))
2673   /*****************************************************************************/
2674   //                      I2C1 MODUL (2-ZICANI SERIJSKI INTERFEJS):(7 registara)
2675   //
2676   /*****************************************************************************/
2677   typedef union
2678    {
2679     struct
2680      {
2681        _IO I2CRCV:8;
2682       };
2683     }I2C1RCVbits;
2684
2685   #define I2C1RCV    ((I2C1RCVbits*)(I2C1RCV_BASE))
2686   /*****************************************************************************/
2687   typedef union
2688    {
2689     struct
2690      {
2691        _IO I2CTRN:8;
2692       };
2693     }I2C1TRNbits;
2694
2695   #define I2C1TRN    ((I2C1TRNbits*)(I2C1TRN_BASE))
2696   /*****************************************************************************/
2697   typedef union
2698    {
2699     struct
```

```
2700      {
2701        _IO I2CBRG:9;//BUG!!!
2702       };
2703     }I2C1BRGbits;
2704
2705   #define I2C1BRG   ((I2C1BRGbits*)(I2C1BRG_BASE))
2706   /*****************************************************************************/
2707   typedef union{
2708     struct{
2709             _IO SEN:     1;
2710             _IO RSEN:    1;
2711             _IO PEN:     1;
2712             _IO RCEN:    1;
2713             _IO ACKEN:   1;
2714             _IO ACKDT:   1;
2715             _IO STREN:   1;
2716             _IO GCEN:    1;
2717             _IO SMEN:    1;
2718             _IO DISSLW:  1;
2719             _IO A10M:    1;
2720             _IO IPMIEN:  1;
2721             _IO SCLREL:  1;
2722             _IO I2CSIDL: 1;
2723             _IO :        1;
2724             _IO I2CEN:   1;
2725     };
2726   }I2C1CONbits;
2727
2728   #define I2C1CON   ((I2C1CONbits*)(I2C1CON_BASE))
2729   /*****************************************************************************/
2730   typedef union{
2731                 _IO TBF:    1;
2732                 _IO RBF:    1;
2733                 _IO R_W:    1;
2734                 _IO S:      1;
2735                 _IO P:      1;
2736                 _IO D_A:    1;
2737                 _IO I2COV:  1;
2738                 _IO IWCOL:  1;
2739                 _IO ADD10:  1;
2740                 _IO GCSTAT: 1;
2741                 _IO BCL:    1;
2742                 _IO :       3;
2743                 _IO TRSTAT: 1;
2744                 _IO ACKSTAT:1;
2745   }I2C1STATbits;
2746
2747   #define I2C1STAT   ((I2C1STATbits*)(I2C1STAT_BASE))
2748   /*****************************************************************************/
2749   typedef union
2750    {
2751     struct
2752      {
2753        _IO I2CADD:10;//BUG!!!
2754       };
2755     }I2C1ADDbits;
2756
2757   #define I2C1ADD   ((I2C1ADDbits*)(I2C1ADD_BASE))
2758   /*****************************************************************************/
2759   typedef union
2760    {
2761     struct
2762      {
2763        _IO I2CMSK:10;//BUG!!!
2764       };
2765     }I2C1MSKbits;
2766
2767   #define I2C1MSK   ((I2C1MSKbits*)(I2C1MSK_BASE))
2768   /*****************************************************************************/
2769   //                      I2C2 MODUL (2-ZICANI SERIJSKI INTERFEJS):(7 registara)
2770   //
2771   /*****************************************************************************/
2772   typedef union
```

```
2773    {
2774     struct
2775      {
2776       _IO I2CRCV:8;//BUG!!!
2777      };
2778     }I2C2RCVbits;
2779
2780    #define I2C2RCV    ((I2C2RCVbits*)(I2C2RCV_BASE))
2781    /*****************************************************************************/
2782    typedef union
2783     {
2784      struct
2785       {
2786       _IO I2CTRN:8;//BUG!!!
2787       };
2788     }I2C2TRNbits;
2789
2790    #define I2C2TRN    ((I2C2TRNbits*)(I2C2TRN_BASE))
2791    /*****************************************************************************/
2792    typedef union
2793     {
2794      struct
2795       {
2796       _IO I2CBRG:9;//BUG!!!
2797       };
2798     }I2C2BRGbits;
2799
2800    #define I2C2BRG    ((I2C2BRGbits*)(I2C2BRG_BASE))
2801    /*****************************************************************************/
2802    typedef union{
2803      struct{
2804              _IO SEN:     1;
2805              _IO RSEN:    1;
2806              _IO PEN:     1;
2807              _IO RCEN:    1;
2808              _IO ACKEN:   1;
2809              _IO ACKDT:   1;
2810              _IO STREN:   1;
2811              _IO GCEN:    1;
2812              _IO SMEN:    1;
2813              _IO DISSLW:  1;
2814              _IO A10M:    1;
2815              _IO IPMIEN:  1;
2816              _IO SCLREL:  1;
2817              _IO I2CSIDL:1;
2818              _IO :        1;
2819              _IO I2CEN:   1;
2820                };
2821    }I2C2CONbits;
2822
2823    #define I2C2CON    ((I2C2CONbits*)(I2C2CON_BASE))
2824    /*****************************************************************************/
2825    typedef union{
2826      struct{
2827              _IO TBF:     1;
2828              _IO RBF:     1;
2829              _IO R_W:     1;
2830              _IO S:       1;
2831              _IO P:       1;
2832              _IO D_A:     1;
2833              _IO I2COV:   1;
2834              _IO IWCOL:   1;
2835              _IO ADD10:   1;
2836              _IO GCSTAT:  1;
2837              _IO BCL:     1;
2838              _IO :        3;
2839              _IO TRSTAT:  1;
2840              _IO ACKSTAT:1;
2841              };
2842    }I2C2STATbits;
2843
2844    #define I2C2STAT    ((I2C2STATbits*)(I2C2STAT_BASE))
2845    /*****************************************************************************/
```

```
2846  typedef union
2847   {
2848    struct
2849     {
2850       _IO I2CADD:10;//BUG!!!
2851      };
2852    }I2C2ADDbits;
2853
2854  #define I2C2ADD   ((I2C2ADDbits*)(I2C2ADD_BASE))
2855  /*****************************************************************************/
2856  typedef union
2857   {
2858    struct
2859     {
2860       _IO I2CMSK:10;//BUG!!!
2861      };
2862    }I2C2MSKbits;
2863
2864  #define I2C2MSK   ((I2C2MSKbits*)(I2C2MSK_BASE))
2865  /*****************************************************************************/
2866  //                      USART1 MODUL (SERIJSKI INTERFEJS):(5 registara)
2867  //
2868  /*****************************************************************************/
2869  typedef union{
2870      struct {
2871               _IO STSEL:    1;
2872               _IO PDSEL:    2;
2873               _IO BRGH:     1;
2874               _IO URXINV:   1;
2875               _IO ABAUD:    1;
2876               _IO LPBACK:   1;
2877               _IO WAKE:     1;
2878               _IO UEN:      2;
2879               _IO :         1;
2880               _IO RTSMD:    1;
2881               _IO IREN:     1;
2882               _IO USIDL:    1;
2883               _IO :         1;
2884               _IO UARTEN:   1;
2885                };
2886      struct {
2887               _IO :         1;
2888               _IO PDSEL0:   1;
2889               _IO PDSEL1:   1;
2890               _IO :         5;
2891               _IO UEN0:     1;
2892               _IO UEN1:     1;
2893              };
2894  }U1MODEbits;
2895
2896  #define U1MODE   ((U1MODEbits*)(U1MODE_BASE))
2897  /*****************************************************************************/
2898  typedef union{
2899      struct {
2900               _IO URXDA:     1;
2901               _IO OERR:      1;
2902               _IO FERR:      1;
2903               _IO PERR:      1;
2904               _IO RIDLE:     1;
2905               _IO ADDEN:     1;
2906               _IO URXISEL:   2;
2907               _IO TRMT:      1;
2908               _IO UTXBF:     1;
2909               _IO UTXEN:     1;
2910               _IO UTXBRK:    1;
2911               _IO :          1;
2912               _IO UTXISEL0:  1;
2913               _IO UTXINV:    1;
2914               _IO UTXISEL1:  1;
2915                };
2916      struct {
2917               _IO :          6;
2918               _IO URXISEL0:  1;
```

```
2919                _IO URXISEL1:  1;
2920               };
2921   }U1STAbits;
2922
2923   #define U1STA   ((U1STAbits*)(U1STA_BASE))
2924   /*****************************************************************************/
2925   typedef union{
2926      struct{
2927              _IO UTXREG: 9;
2928             };
2929     struct{
2930             _IO UTXREG0:   1;
2931             _IO UTXREG1:   1;
2932             _IO UTXREG2:   1;
2933             _IO UTXREG3:   1;
2934             _IO UTXREG4:   1;
2935             _IO UTXREG5:   1;
2936             _IO UTXREG6:   1;
2937             _IO UTXREG7:   1;
2938             _IO UTXREG8:   1;
2939              };
2940   }U1TXREGbits;
2941
2942   #define U1TXREG   ((U1TXREGbits*)(U1TXREG_BASE))
2943   /*****************************************************************************/
2944   typedef union{
2945     struct{
2946             _IO URXREG:   9;
2947             };
2948     struct{
2949             _IO URXREG0:    1;
2950             _IO URXREG1:    1;
2951             _IO URXREG2:    1;
2952             _IO URXREG3:    1;
2953             _IO URXREG4:    1;
2954             _IO URXREG5:    1;
2955             _IO URXREG6:    1;
2956             _IO URXREG7:    1;
2957             _IO URXREG8:    1;
2958             };
2959   }U1RXREGbits;
2960
2961   #define U1RXREG   ((U1RXREGbits*)(U1RXREG_BASE))
2962   /*****************************************************************************/
2963   typedef union
2964    {
2965     struct
2966      {
2967        _IO UBRG:16;
2968       };
2969     }U1BRGbits;
2970
2971   #define U1BRG   ((U1BRGbits*)(U1BRG_BASE))
2972   /*****************************************************************************/
2973   //                     USART2 MODUL (SERIJSKI INTERFEJS):(5 registara)
2974   //
2975   /*****************************************************************************/
2976   typedef union{
2977       struct {
2978                _IO STSEL:      1;
2979                _IO PDSEL:      2;
2980                _IO BRGH:       1;
2981                _IO URXINV:     1;
2982                _IO ABAUD:      1;
2983                _IO LPBACK:     1;
2984                _IO WAKE:       1;
2985                _IO UEN:        2;
2986                _IO :           1;
2987                _IO RTSMD:      1;
2988                _IO IREN:       1;
2989                _IO USIDL:      1;
2990                _IO :           1;
2991                _IO UARTEN:     1;
```

```
2992            };
2993        struct {
2994                _IO :           1;
2995                _IO PDSEL0:     1;
2996                _IO PDSEL1:     1;
2997                _IO :           5;
2998                _IO UEN0:       1;
2999                _IO UEN1:       1;
3000               };
3001    }U2MODEbits;
3002
3003    #define U2MODE    ((U2MODEbits*)(U2MODE_BASE))
3004    /*****************************************************************************/
3005    typedef union{
3006        struct {
3007                _IO URXDA:      1;
3008                _IO OERR:       1;
3009                _IO FERR:       1;
3010                _IO PERR:       1;
3011                _IO RIDLE:      1;
3012                _IO ADDEN:      1;
3013                _IO URXISEL:    2;
3014                _IO TRMT:       1;
3015                _IO UTXBF:      1;
3016                _IO UTXEN:      1;
3017                _IO UTXBRK:     1;
3018                _IO :           1;
3019                _IO UTXISEL0:   1;
3020                _IO UTXINV:     1;
3021                _IO UTXISEL1:   1;
3022                 };
3023        struct {
3024                _IO :           6;
3025                _IO URXISEL0:   1;
3026                _IO URXISEL1:   1;
3027                };
3028    }U2STAbits;
3029
3030    #define U2STA    ((U2STAbits*)(U2STA_BASE))
3031    /*****************************************************************************/
3032    typedef union{
3033      struct{
3034              _IO UTXREG:       9;
3035             };
3036      struct{
3037              _IO UTXREG0:      1;
3038              _IO UTXREG1:      1;
3039              _IO UTXREG2:      1;
3040              _IO UTXREG3:      1;
3041              _IO UTXREG4:      1;
3042              _IO UTXREG5:      1;
3043              _IO UTXREG6:      1;
3044              _IO UTXREG7:      1;
3045              _IO UTXREG8:      1;
3046               };
3047    }U2TXREGbits;
3048
3049    #define U2TXREG    ((U2TXREGbits*)(U2TXREG_BASE))
3050    /*****************************************************************************/
3051    typedef union{
3052      struct{
3053              _IO URXREG:        9;
3054             };
3055      struct{
3056              _IO URXREG0:       1;
3057              _IO URXREG1:       1;
3058              _IO URXREG2:       1;
3059              _IO URXREG3:       1;
3060              _IO URXREG4:       1;
3061              _IO URXREG5:       1;
3062              _IO URXREG6:       1;
3063              _IO URXREG7:       1;
3064              _IO URXREG8:       1;
```

```
3065            };
3066    }U2RXREGbits;
3067
3068    #define U2RXREG   ((U2RXREGbits*)(U2RXREG_BASE))
3069    /*****************************************************************************/
3070    typedef union
3071     {
3072      struct
3073       {
3074        _IO UBRG:16;
3075       };
3076      }U2BRGbits;
3077
3078    #define U2BRG   ((U2BRGbits*)(U2BRG_BASE))
3079    /*****************************************************************************/
3080    //                      SPI1 MODUL (SERIJSKI INTERFEJS):(4 registra)
3081    //
3082    /*****************************************************************************/
3083    typedef union{
3084      struct{
3085              _IO SPIRBF:     1;
3086              _IO SPITBF:     1;
3087              _IO :           4;
3088              _IO SPIROV:     1;
3089              _IO :           6;
3090              _IO SPISIDL:    1;
3091              _IO :           1;
3092              _IO SPIEN:      1;
3093              };
3094    }SPI1STATbits;
3095
3096    #define SPI1STAT   ((SPI1STATbits*)(SPI1STAT_BASE))
3097    /*****************************************************************************/
3098    typedef union{
3099        struct {
3100                _IO PPRE:     2;
3101                _IO SPRE:     3;
3102                _IO MSTEN:    1;
3103                _IO CKP:      1;
3104                _IO SSEN:     1;
3105                _IO CKE:      1;
3106                _IO SMP:      1;
3107                _IO MODE16:   1;
3108                _IO DISSDO:   1;
3109                _IO DISSCK:   1;
3110                };
3111        struct {
3112                _IO PPRE0:    1;
3113                _IO PPRE1:    1;
3114                _IO SPRE0:    1;
3115                _IO SPRE1:    1;
3116                _IO SPRE2:    1;
3117                };
3118    }SPI1CON1bits;
3119
3120    #define SPI1CON1   ((SPI1CON1bits*)(SPI1CON1_BASE))
3121    /*****************************************************************************/
3122    typedef union{
3123        struct {
3124                _IO :         1;
3125                _IO FRMDLY:   1;
3126                _IO :        11;
3127                _IO FRMPOL:   1;
3128                _IO SPIFSD:   1;
3129                _IO FRMEN:    1;
3130                 };
3131        struct {
3132                _IO :        14;
3133                _IO FRMSYNC:  1;
3134                };
3135    }SPI1CON2bits;
3136
3137    #define SPI1CON2   ((SPI1CON2bits*)(SPI1CON2_BASE))
```

```
/*****************************************************************************/
typedef union
 {
  struct
   {
    _IO SPIBUF:          16;
   };
  }SPI1BUFbits;

#define SPI1BUF   ((SPI1BUFbits*)(SPI1BUF_BASE))
/*****************************************************************************/
//                      SPI2 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;
         };
}SPI2STATbits;

#define SPI2STAT   ((SPI2STATbits*)(SPI2STAT_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;
             };
}SPI2CON1bits;

#define SPI2CON1   ((SPI2CON1bits*)(SPI2CON1_BASE))
/*****************************************************************************/
typedef union{
    struct {
             _IO:           1;
             _IO FRMDLY:    1;
             _IO:          11;
             _IO FRMPOL:    1;
             _IO SPIFSD:    1;
             _IO FRMEN:     1;
            };
    struct {
             _IO:          14;
             _IO FRMSYNC:   1;
            };
}SPI2CON2bits;

#define SPI2CON2   ((SPI2CON2bits*)(SPI2CON2_BASE))
/*****************************************************************************/
typedef union
 {
  struct
```

```
3211      {
3212       _IO SPIBUF:            16;
3213       };
3214     }SPI2BUFbits;
3215
3216   #define SPI2BUF   ((SPI2BUFbits*)(SPI2BUF_BASE))
3217   /*****************************************************************************/
3218   //                            ADC1 MODUL:(11 registara)
3219   //                    (MODUL ANALOGNO-DIGITALNOG PRETVARACA)
3220   /*****************************************************************************/
3221   typedef union
3222    {
3223     struct
3224      {
3225       _IO ADCBUF0:            16;
3226       };
3227     }ADC1BUF0bits;
3228
3229   #define ADC1BUF0   ((ADC1BUF0bits*)(ADC1BUF0_BASE))
3230   /*****************************************************************************/
3231   typedef union{
3232       struct {
3233                _IO DONE:          1;
3234                _IO SAMP:          1;
3235                _IO ASAM:          1;
3236                _IO SIMSAM:        1;
3237                _IO :              1;
3238                _IO SSRC:          3;
3239                _IO FORM:          2;
3240                _IO AD12B:         1;
3241                _IO :              1;
3242                _IO ADDMABM:       1;
3243                _IO ADSIDL:        1;
3244                _IO :              1;
3245                _IO ADON:          1;
3246                 };
3247       struct {
3248                _IO :              5;
3249                _IO SSRC0:         1;
3250                _IO SSRC1:         1;
3251                _IO SSRC2:         1;
3252                _IO FORM0:         1;
3253                _IO FORM1:         1;
3254              };
3255   }AD1CON1bits;
3256
3257   #define AD1CON1   ((AD1CON1bits*)(AD1CON1_BASE))
3258   /*****************************************************************************/
3259   typedef union{
3260       struct {
3261                _IO ALTS:           1;
3262                _IO BUFM:           1;
3263                _IO SMPI:           4;
3264                _IO :               1;
3265                _IO BUFS:           1;
3266                _IO CHPS:           2;
3267                _IO CSCNA:          1;
3268                _IO :               2;
3269                _IO VCFG:           3;
3270                };
3271       struct {
3272                _IO :               2;
3273                _IO SMPI0:          1;
3274                _IO SMPI1:          1;
3275                _IO SMPI2:          1;
3276                _IO SMPI3:          1;
3277                _IO :               2;
3278                _IO CHPS0:          1;
3279                _IO CHPS1:          1;
3280                _IO :               3;
3281                _IO VCFG0:          1;
3282                _IO VCFG1:          1;
3283                _IO VCFG2:          1;
```

```
3284                };
3285    }AD1CON2bits;
3286
3287    #define AD1CON2    ((AD1CON2bits*)(AD1CON2_BASE))
3288    /*****************************************************************************/
3289    typedef union{
3290        struct {
3291                _IO ADCS:           8;
3292                _IO SAMC:           5;
3293                _IO :               2;
3294                _IO ADRC:           1;
3295                };
3296        struct {
3297               _IO ADCS0:           1;
3298               _IO ADCS1:           1;
3299               _IO ADCS2:           1;
3300               _IO ADCS3:           1;
3301               _IO ADCS4:           1;
3302               _IO ADCS5:           1;
3303               _IO ADCS6:           1;
3304               _IO ADCS7:           1;
3305               _IO SAMC0:           1;
3306               _IO SAMC1:           1;
3307               _IO SAMC2:           1;
3308               _IO SAMC3:           1;
3309               _IO SAMC4:           1;
3310                };
3311    }AD1CON3bits;
3312
3313    #define AD1CON3    ((AD1CON3bits*)(AD1CON3_BASE))
3314    /*****************************************************************************/
3315    typedef union {
3316        struct {
3317                _IO DMABL:          3;
3318               };
3319        struct {
3320                _IO DMABL0:         1;
3321                _IO DMABL1:         1;
3322                _IO DMABL2:         1;
3323              };
3324    }AD1CON4bits;
3325
3326    #define AD1CON4    ((AD1CON4bits*)(AD1CON4_BASE))
3327    /*****************************************************************************/
3328    typedef union{
3329        struct {
3330                _IO CH123SA:        1;
3331                _IO CH123NA:        2;
3332                _IO :               5;
3333                _IO CH123SB:        1;
3334                _IO CH123NB:        2;
3335                };
3336        struct {
3337                _IO :               1;
3338                _IO CH123NA0:       1;
3339                _IO CH123NA1:       1;
3340                _IO :               6;
3341                _IO CH123NB0:       1;
3342                _IO CH123NB1:       1;
3343                };
3344    }AD1CHS123bits;
3345
3346    #define AD1CHS123    ((AD1CHS123bits*)(AD1CHS123_BASE))
3347    /*****************************************************************************/
3348    typedef union {
3349        struct {
3350                _IO CH0SA:          5;
3351                _IO :               2;
3352                _IO CH0NA:          1;
3353                _IO CH0SB:          5;
3354                _IO :               2;
3355                _IO CH0NB:          1;
3356                };
```

```
3357        struct {
3358                _IO CH0SA0:         1;
3359                _IO CH0SA1:         1;
3360                _IO CH0SA2:         1;
3361                _IO CH0SA3:         1;
3362                _IO CH0SA4:         1;
3363                      _IO:          3;
3364                _IO CH0SB0:         1;
3365                _IO CH0SB1:         1;
3366                _IO CH0SB2:         1;
3367                _IO CH0SB3:         1;
3368                _IO CH0SB4:         1;
3369                  };
3370    }AD1CHS0bits;
3371
3372    #define AD1CHS0   ((AD1CHS0bits*)(AD1CHS0_BASE))
3373    /*****************************************************************************/
3374    typedef union{
3375      struct{
3376              _IO PCFG:           16;
3377             };
3378      struct{
3379              _IO PCFG0:           1;
3380              _IO PCFG1:           1;
3381              _IO PCFG2:           1;
3382              _IO PCFG3:           1;
3383              _IO PCFG4:           1;
3384              _IO PCFG5:           1;
3385              _IO PCFG6:           1;
3386              _IO PCFG7:           1;
3387              _IO PCFG8:           1;
3388              _IO PCFG9:           1;
3389              _IO PCFG10:          1;
3390              _IO PCFG11:          1;
3391              _IO PCFG12:          1;
3392              _IO PCFG13:          1;
3393              _IO PCFG14:          1;
3394              _IO PCFG15:          1;
3395                };
3396    }AD1PCFGLbits;
3397
3398    #define AD1PCFGL   ((AD1PCFGLbits*)(AD1PCFGL_BASE))
3399    /*****************************************************************************/
3400    typedef union{
3401      struct{
3402              _IO PCFG:           16;
3403             };
3404      struct{
3405              _IO PCFG16:          1;
3406              _IO PCFG17:          1;
3407              _IO PCFG18:          1;
3408              _IO PCFG19:          1;
3409              _IO PCFG20:          1;
3410              _IO PCFG21:          1;
3411              _IO PCFG22:          1;
3412              _IO PCFG23:          1;
3413              _IO PCFG24:          1;
3414              _IO PCFG25:          1;
3415              _IO PCFG26:          1;
3416              _IO PCFG27:          1;
3417              _IO PCFG28:          1;
3418              _IO PCFG29:          1;
3419              _IO PCFG30:          1;
3420              _IO PCFG31:          1;
3421                };
3422    }AD1PCFGHbits;
3423
3424    #define AD1PCFGH   ((AD1PCFGHbits*)(AD1PCFGH_BASE))
3425    /*****************************************************************************/
3426    typedef union{
3427      struct{
3428              _IO CSSL:           16;
3429             };
```

```
3430      struct{
3431              _IO CSS0:              1;
3432              _IO CSS1:              1;
3433              _IO CSS2:              1;
3434              _IO CSS3:              1;
3435              _IO CSS4:              1;
3436              _IO CSS5:              1;
3437              _IO CSS6:              1;
3438              _IO CSS7:              1;
3439              _IO CSS8:              1;
3440              _IO CSS9:              1;
3441              _IO CSS10:             1;
3442              _IO CSS11:             1;
3443              _IO CSS12:             1;
3444              _IO CSS13:             1;
3445              _IO CSS14:             1;
3446              _IO CSS15:             1;
3447              };
3448    }AD1CSSLbits;
3449
3450    #define AD1CSSL   ((AD1CSSLbits*)(AD1CSSL_BASE))
3451    /*****************************************************************************/
3452    typedef union{
3453      struct{
3454              _IO CSSH:            16;
3455              };
3456      struct{
3457              _IO CSS16:             1;
3458              _IO CSS17:             1;
3459              _IO CSS18:             1;
3460              _IO CSS19:             1;
3461              _IO CSS20:             1;
3462              _IO CSS21:             1;
3463              _IO CSS22:             1;
3464              _IO CSS23:             1;
3465              _IO CSS24:             1;
3466              _IO CSS25:             1;
3467              _IO CSS26:             1;
3468              _IO CSS27:             1;
3469              _IO CSS28:             1;
3470              _IO CSS29:             1;
3471              _IO CSS30:             1;
3472              _IO CSS31:             1;
3473              };
3474    }AD1CSSHbits;
3475
3476    #define AD1CSSH   ((AD1CSSHbits*)(AD1CSSH_BASE))
3477    /*****************************************************************************/
3478    //                            DMA MODUL:(51 registar)
3479    //                     (MODUL ZA DIREKTNI PRISTUP MEMORIJI)
3480    /*****************************************************************************/
3481    typedef union{
3482        struct {
3483                _IO MODE:          2;
3484                _IO :              2;
3485                _IO AMODE:         2;
3486                _IO :              5;
3487                _IO NULLW:         1;
3488                _IO HALF:          1;
3489                _IO DIR:           1;
3490                _IO SIZE:          1;
3491                _IO CHEN:          1;
3492                };
3493        struct {
3494               _IO MODE0:          1;
3495               _IO MODE1:          1;
3496               _IO :               2;
3497               _IO AMODE0:         1;
3498               _IO AMODE1:         1;
3499                };
3500    }DMA0CONbits;
3501
3502    #define DMA0CON   ((DMA0CONbits*)(DMA0CON_BASE))
```

```
3503  /*******************************************************************************/
3504  typedef union{
3505      struct {
3506              _IO IRQSEL:         7;
3507              _IO :               8;
3508              _IO FORCE:          1;
3509             };
3510      struct {
3511              _IO IRQSEL0:        1;
3512              _IO IRQSEL1:        1;
3513              _IO IRQSEL2:        1;
3514              _IO IRQSEL3:        1;
3515              _IO IRQSEL4:        1;
3516              _IO IRQSEL5:        1;
3517              _IO IRQSEL6:        1;
3518             };
3519  }DMA0REQbits;
3520
3521  #define DMA0REQ   ((DMA0REQbits*)(DMA0REQ_BASE))
3522  /*******************************************************************************/
3523  typedef union
3524   {
3525    struct
3526     {
3527       _IO DMASTA:               16;
3528      };
3529    }DMA0STAbits;
3530
3531  #define DMA0STA   ((DMA0STAbits*)(DMA0STA_BASE))
3532  /*******************************************************************************/
3533  typedef union
3534   {
3535    struct
3536     {
3537       _IO DMASTB:                16;
3538      };
3539    }DMA0STBbits;
3540
3541  #define DMA0STB   ((DMA0STBbits*)(DMA0STB_BASE))
3542  /*******************************************************************************/
3543  typedef union
3544   {
3545    struct
3546     {
3547       _IO DMAPAD:                16;
3548      };
3549    }DMA0PADbits;
3550
3551  #define DMA0PAD   ((DMA0PADbits*)(DMA0PAD_BASE))
3552  /*******************************************************************************/
3553  typedef union
3554   {
3555    struct
3556     {
3557       _IO DMACNT:              10;
3558      };
3559    }DMA0CNTbits;
3560
3561  #define DMA0CNT   ((DMA0CNTbits*)(DMA0CNT_BASE))
3562  /*******************************************************************************/
3563  typedef union{
3564      struct {
3565              _IO MODE:           2;
3566              _IO :               2;
3567              _IO AMODE:          2;
3568              _IO :               5;
3569              _IO NULLW:          1;
3570              _IO HALF:           1;
3571              _IO DIR:            1;
3572              _IO SIZE:           1;
3573              _IO CHEN:           1;
3574               };
3575      struct {
```

```
3576                _IO MODE0:          1;
3577                _IO MODE1:          1;
3578                _IO :               2;
3579                _IO AMODE0:         1;
3580                _IO AMODE1:         1;
3581                };
3582    }DMA1CONbits;
3583
3584    #define DMA1CON    ((DMA1CONbits*)(DMA1CON_BASE))
3585    /*****************************************************************************/
3586    typedef union{
3587        struct {
3588                _IO IRQSEL:         7;
3589                _IO :               8;
3590                _IO FORCE:          1;
3591                };
3592        struct {
3593                _IO IRQSEL0:        1;
3594                _IO IRQSEL1:        1;
3595                _IO IRQSEL2:        1;
3596                _IO IRQSEL3:        1;
3597                _IO IRQSEL4:        1;
3598                _IO IRQSEL5:        1;
3599                _IO IRQSEL6:        1;
3600                };
3601    }DMA1REQbits;
3602
3603    #define DMA1REQ    ((DMA1REQbits*)(DMA1REQ_BASE))
3604    /*****************************************************************************/
3605    typedef union
3606     {
3607      struct
3608       {
3609         _IO DMASTA:              16;
3610       };
3611      }DMA1STAbits;
3612
3613    #define DMA1STA    ((DMA1STAbits*)(DMA1STA_BASE))
3614    /*****************************************************************************/
3615    typedef union
3616     {
3617      struct
3618       {
3619         _IO DMASTB:              16;
3620       };
3621      }DMA1STBbits;
3622
3623    #define DMA1STB    ((DMA1STBbits*)(DMA1STB_BASE))
3624    /*****************************************************************************/
3625    typedef union
3626     {
3627      struct
3628       {
3629         _IO DMAPAD:             16;
3630       };
3631      }DMA1PADbits;
3632
3633    #define DMA1PAD    ((DMA1PADbits*)(DMA1PAD_BASE))
3634    /*****************************************************************************/
3635    typedef union
3636     {
3637      struct
3638       {
3639         _IO DMACNT:              10;
3640       };
3641      }DMA1CNTbits;
3642
3643    #define DMA1CNT    ((DMA1CNTbits*)(DMA1CNT_BASE))
3644    /*****************************************************************************/
3645    typedef union{
3646        struct {
3647                _IO MODE:           2;
3648                _IO :               2;
```

```
3649                _IO AMODE:          2;
3650                _IO :               5;
3651                _IO NULLW:          1;
3652                _IO HALF:           1;
3653                _IO DIR:            1;
3654                _IO SIZE:           1;
3655                _IO CHEN:           1;
3656                };
3657        struct {
3658                _IO MODE0:          1;
3659                _IO MODE1:          1;
3660                      _IO:          2;
3661              _IO AMODE0:           1;
3662              _IO AMODE1:           1;
3663               };
3664    }DMA2CONbits;
3665
3666    #define DMA2CON   ((DMA2CONbits*)(DMA2CON_BASE))
3667    /*****************************************************************************/
3668    typedef union{
3669        struct {
3670                _IO IRQSEL:         7;
3671                _IO :               8;
3672                _IO FORCE:          1;
3673                };
3674        struct {
3675                _IO IRQSEL0:        1;
3676                _IO IRQSEL1:        1;
3677                _IO IRQSEL2:        1;
3678                _IO IRQSEL3:        1;
3679                _IO IRQSEL4:        1;
3680                _IO IRQSEL5:        1;
3681                _IO IRQSEL6:        1;
3682                };
3683    }DMA2REQbits;
3684
3685    #define DMA2REQ   ((DMA2REQbits*)(DMA2REQ_BASE))
3686    /*****************************************************************************/
3687    typedef union
3688     {
3689      struct
3690       {
3691         _IO DMASTA:             16;
3692        };
3693      }DMA2STAbits;
3694
3695    #define DMA2STA   ((DMA2STAbits*)(DMA2STA_BASE))
3696    /*****************************************************************************/
3697    typedef union
3698     {
3699      struct
3700       {
3701        _IO DMASTB:               16;
3702       };
3703      }DMA2STBbits;
3704
3705    #define DMA2STB   ((DMA2STBbits*)(DMA2STB_BASE))
3706    /*****************************************************************************/
3707    typedef union
3708     {
3709      struct
3710       {
3711         _IO DMAPAD:             16;
3712        };
3713      }DMA2PADbits;
3714
3715    #define DMA2PAD   ((DMA2PADbits*)(DMA2PAD_BASE))
3716    /*****************************************************************************/
3717    typedef union
3718     {
3719      struct
3720       {
3721         _IO DMACNT:             10;
```

```
3722        };
3723      }DMA2CNTbits;
3724
3725    #define DMA2CNT    ((DMA2CNTbits*)(DMA2CNT_BASE))
3726    /*****************************************************************************/
3727    typedef union{
3728        struct {
3729                _IO MODE:          2;
3730                _IO :              2;
3731                _IO AMODE:         2;
3732                _IO :              5;
3733                _IO NULLW:         1;
3734                _IO HALF:          1;
3735                _IO DIR:           1;
3736                _IO SIZE:          1;
3737                _IO CHEN:          1;
3738               };
3739        struct {
3740               _IO MODE0:          1;
3741               _IO MODE1:          1;
3742               _IO :               2;
3743               _IO AMODE0:         1;
3744               _IO AMODE1:         1;
3745               };
3746    }DMA3CONbits;
3747
3748    #define DMA3CON    ((DMA3CONbits*)(DMA3CON_BASE))
3749    /*****************************************************************************/
3750    typedef union{
3751        struct {
3752                _IO IRQSEL:        7;
3753                _IO :              8;
3754                _IO FORCE:         1;
3755               };
3756        struct {
3757                _IO IRQSEL0:       1;
3758                _IO IRQSEL1:       1;
3759                _IO IRQSEL2:       1;
3760                _IO IRQSEL3:       1;
3761                _IO IRQSEL4:       1;
3762                _IO IRQSEL5:       1;
3763                _IO IRQSEL6:       1;
3764               };
3765    }DMA3REQbits;
3766
3767    #define DMA3REQ    ((DMA3REQbits*)(DMA3REQ_BASE))
3768    /*****************************************************************************/
3769    typedef union
3770     {
3771      struct
3772       {
3773         _IO DMASTA:             16;
3774       };
3775      }DMA3STAbits;
3776
3777    #define DMA3STA    ((DMA3STAbits*)(DMA3STA_BASE))
3778    /*****************************************************************************/
3779    typedef union
3780     {
3781      struct
3782       {
3783         _IO DMASTB:             16;
3784       };
3785      }DMA3STBbits;
3786
3787    #define DMA3STB    ((DMA3STBbits*)(DMA3STB_BASE))
3788    /*****************************************************************************/
3789    typedef union
3790     {
3791      struct
3792       {
3793         _IO DMAPAD:             16;
3794       };
```

```
3795    }DMA3PADbits;
3796
3797  #define DMA3PAD   ((DMA3PADbits*)(DMA3PAD_BASE))
3798  /*****************************************************************************/
3799  typedef union
3800   {
3801    struct
3802     {
3803       _IO DMACNT:               10;
3804      };
3805    }DMA3CNTbits;
3806
3807  #define DMA3CNT   ((DMA3CNTbits*)(DMA3CNT_BASE))
3808  /*****************************************************************************/
3809  typedef union{
3810      struct {
3811               _IO MODE:           2;
3812               _IO :               2;
3813               _IO AMODE:          2;
3814               _IO :               5;
3815               _IO NULLW:          1;
3816               _IO HALF:           1;
3817               _IO DIR:            1;
3818               _IO SIZE:           1;
3819               _IO CHEN:           1;
3820                };
3821      struct {
3822               _IO MODE0:          1;
3823               _IO MODE1:          1;
3824               _IO :               2;
3825               _IO AMODE0:         1;
3826               _IO AMODE1:         1;
3827               };
3828  }DMA4CONbits;
3829
3830  #define DMA4CON   ((DMA4CONbits*)(DMA4CON_BASE))
3831  /*****************************************************************************/
3832  typedef union{
3833      struct {
3834               _IO IRQSEL:         7;
3835               _IO :               8;
3836               _IO FORCE:          1;
3837               };
3838      struct {
3839               _IO IRQSEL0:        1;
3840               _IO IRQSEL1:        1;
3841               _IO IRQSEL2:        1;
3842               _IO IRQSEL3:        1;
3843               _IO IRQSEL4:        1;
3844               _IO IRQSEL5:        1;
3845               _IO IRQSEL6:        1;
3846               };
3847  }DMA4REQbits;
3848
3849  #define DMA4REQ   ((DMA4REQbits*)(DMA4REQ_BASE))
3850  /*****************************************************************************/
3851  typedef union
3852   {
3853    struct
3854     {
3855      _IO DMASTA:               16;
3856      };
3857    }DMA4STAbits;
3858
3859  #define DMA4STA   ((DMA4STAbits*)(DMA4STA_BASE))
3860  /*****************************************************************************/
3861  typedef union
3862   {
3863    struct
3864     {
3865      _IO DMASTB:               16;
3866      };
3867    }DMA4STBbits;
```

```
3868
3869  #define DMA4STB   ((DMA4STBbits*)(DMA4STB_BASE))
3870  /*****************************************************************************/
3871  typedef union
3872   {
3873    struct
3874     {
3875      _IO DMAPAD:                16;
3876     };
3877    }DMA4PADbits;
3878
3879  #define DMA4PAD   ((DMA4PADbits*)(DMA4PAD_BASE))
3880  /*****************************************************************************/
3881  typedef union
3882   {
3883    struct
3884     {
3885       _IO DMACNT:                10;
3886     };
3887    }DMA4CNTbits;
3888
3889  #define DMA4CNT   ((DMA4CNTbits*)(DMA4CNT_BASE))
3890  /*****************************************************************************/
3891  typedef union{
3892      struct {
3893               _IO MODE:            2;
3894               _IO :                2;
3895               _IO AMODE:           2;
3896               _IO :                5;
3897               _IO NULLW:           1;
3898               _IO HALF:            1;
3899               _IO DIR:             1;
3900               _IO SIZE:            1;
3901               _IO CHEN:            1;
3902                };
3903      struct {
3904              _IO MODE0:            1;
3905              _IO MODE1:            1;
3906                   _IO:             2;
3907             _IO AMODE0:            1;
3908             _IO AMODE1:            1;
3909              };
3910  }DMA5CONbits;
3911
3912  #define DMA5CON   ((DMA5CONbits*)(DMA5CON_BASE))
3913  /*****************************************************************************/
3914  typedef union{
3915      struct {
3916               _IO IRQSEL:          7;
3917               _IO:                 8;
3918               _IO FORCE:           1;
3919               };
3920      struct {
3921               _IO IRQSEL0:         1;
3922               _IO IRQSEL1:         1;
3923               _IO IRQSEL2:         1;
3924               _IO IRQSEL3:         1;
3925               _IO IRQSEL4:         1;
3926               _IO IRQSEL5:         1;
3927               _IO IRQSEL6:         1;
3928               };
3929  }DMA5REQbits;
3930
3931  #define DMA5REQ   ((DMA5REQbits*)(DMA5REQ_BASE))
3932  /*****************************************************************************/
3933  typedef union
3934   {
3935    struct
3936     {
3937      _IO DMASTA:                16;
3938     };
3939    }DMA5STAbits;
3940
```

```
3941  #define DMA5STA   ((DMA5STAbits*)(DMA5STA_BASE))
3942  /*****************************************************************************/
3943  typedef union
3944   {
3945    struct
3946     {
3947      _IO DMASTB:                 16;
3948     };
3949    }DMA5STBbits;
3950
3951  #define DMA5STB   ((DMA5STBbits*)(DMA5STB_BASE))
3952  /*****************************************************************************/
3953  typedef union
3954   {
3955    struct
3956     {
3957      _IO DMAPAD:                  16;
3958     };
3959    }DMA5PADbits;
3960
3961  #define DMA5PAD   ((DMA5PADbits*)(DMA5PAD_BASE))
3962  /*****************************************************************************/
3963  typedef union
3964   {
3965    struct
3966     {
3967      _IO DMACNT:                 10;
3968     };
3969    }DMA5CNTbits;
3970
3971  #define DMA5CNT   ((DMA5CNTbits*)(DMA5CNT_BASE))
3972  /*****************************************************************************/
3973  typedef union{
3974      struct {
3975               _IO MODE:           2;
3976               _IO:                2;
3977               _IO AMODE:          2;
3978               _IO:                5;
3979               _IO NULLW:          1;
3980               _IO HALF:           1;
3981               _IO DIR:            1;
3982               _IO SIZE:           1;
3983               _IO CHEN:           1;
3984                };
3985      struct {
3986               _IO MODE0:          1;
3987               _IO MODE1:          1;
3988               _IO:                2;
3989               _IO AMODE0:         1;
3990              _IO AMODE1:          1;
3991               };
3992  }DMA6CONbits;
3993
3994  #define DMA6CON   ((DMA6CONbits*)(DMA6CON_BASE))
3995  /*****************************************************************************/
3996  typedef union{
3997      struct {
3998               _IO IRQSEL:         7;
3999               _IO:                8;
4000               _IO FORCE:          1;
4001              };
4002      struct {
4003               _IO IRQSEL0:        1;
4004               _IO IRQSEL1:        1;
4005               _IO IRQSEL2:        1;
4006               _IO IRQSEL3:        1;
4007               _IO IRQSEL4:        1;
4008               _IO IRQSEL5:        1;
4009               _IO IRQSEL6:        1;
4010               };
4011  }DMA6REQbits;
4012
4013  #define DMA6REQ   ((DMA6REQbits*)(DMA6REQ_BASE))
```

```
4014  /*****************************************************************************/
4015  typedef union
4016   {
4017    struct
4018     {
4019      _IO DMASTA:                16;
4020     };
4021    }DMA6STAbits;
4022
4023  #define DMA6STA   ((DMA6STAbits*)(DMA6STA_BASE))
4024  /*****************************************************************************/
4025  typedef union
4026   {
4027    struct
4028     {
4029      _IO DMASTB:                16;
4030     };
4031    }DMA6STBbits;
4032
4033  #define DMA6STB   ((DMA6STBbits*)(DMA6STB_BASE))
4034  /*****************************************************************************/
4035  typedef union
4036   {
4037    struct
4038     {
4039      _IO DMAPAD:                16;
4040     };
4041    }DMA6PADbits;
4042
4043  #define DMA6PAD   ((DMA6PADbits*)(DMA6PAD_BASE))
4044  /*****************************************************************************/
4045  typedef union
4046   {
4047    struct
4048     {
4049      _IO DMACNT:                10;
4050     };
4051    }DMA6CNTbits;
4052
4053  #define DMA6CNT   ((DMA6CNTbits*)(DMA6CNT_BASE))
4054  /*****************************************************************************/
4055  typedef union{
4056      struct {
4057               _IO MODE:           2;
4058               _IO:                2;
4059               _IO AMODE:          2;
4060               _IO :               5;
4061               _IO NULLW:          1;
4062               _IO HALF:           1;
4063               _IO DIR:            1;
4064               _IO SIZE:           1;
4065               _IO CHEN:           1;
4066                };
4067      struct {
4068               _IO MODE0:          1;
4069               _IO MODE1:          1;
4070               _IO:                2;
4071               _IO AMODE0:         1;
4072               _IO AMODE1:         1;
4073                };
4074  }DMA7CONbits;
4075
4076  #define DMA7CON   ((DMA7CONbits*)(DMA7CON_BASE))
4077  /*****************************************************************************/
4078  typedef union{
4079      struct {
4080               _IO IRQSEL:         7;
4081               _IO:                8;
4082               _IO FORCE:          1;
4083               };
4084      struct {
4085               _IO IRQSEL0:        1;
4086               _IO IRQSEL1:        1;
```

```
4087                _IO IRQSEL2:          1;
4088                _IO IRQSEL3:          1;
4089                _IO IRQSEL4:          1;
4090                _IO IRQSEL5:          1;
4091                _IO IRQSEL6:          1;
4092               };
4093   }DMA7REQbits;
4094
4095   #define DMA7REQ   ((DMA7REQbits*)(DMA7REQ_BASE))
4096   /*****************************************************************************/
4097   typedef union
4098    {
4099     struct
4100      {
4101       _IO DMASTA:                 16;
4102      };
4103     }DMA7STAbits;
4104
4105   #define DMA7STA   ((DMA7STAbits*)(DMA7STA_BASE))
4106   /*****************************************************************************/
4107   typedef union
4108    {
4109     struct
4110      {
4111       _IO DMASTB:               16;
4112      };
4113     }DMA7STBbits;
4114
4115   #define DMA7STB   ((DMA7STBbits*)(DMA7STB_BASE))
4116   /*****************************************************************************/
4117   typedef union
4118    {
4119     struct
4120      {
4121       _IO DMAPAD:                 16;
4122      };
4123     }DMA7PADbits;
4124
4125   #define DMA7PAD   ((DMA7PADbits*)(DMA7PAD_BASE))
4126   /*****************************************************************************/
4127   typedef union
4128    {
4129     struct
4130      {
4131       _IO DMACNT:                 10;
4132      };
4133     }DMA7CNTbits;
4134
4135   #define DMA7CNT   ((DMA7CNTbits*)(DMA7CNT_BASE))
4136   /*****************************************************************************/
4137   typedef union{
4138       struct {
4139                _IO XWCOL0:           1;
4140                _IO XWCOL1:           1;
4141                _IO XWCOL2:           1;
4142                _IO XWCOL3:           1;
4143                _IO XWCOL4:           1;
4144                _IO XWCOL5:           1;
4145                _IO XWCOL6:           1;
4146                _IO XWCOL7:           1;
4147                _IO PWCOL0:           1;
4148                _IO PWCOL1:           1;
4149                _IO PWCOL2:           1;
4150                _IO PWCOL3:           1;
4151                _IO PWCOL4:           1;
4152                _IO PWCOL5:           1;
4153                _IO PWCOL6:           1;
4154                _IO PWCOL7:           1;
4155                 };
4156       struct {
4157                _IO XWCOL:            8;
4158                _IO PWCOL:            8;
4159               };
```

```
}DMACS0bits;

#define DMACS0    ((DMACS0bits*)(DMACS0_BASE))
/*****************************************************************************/
typedef union{
    struct {
             _IO PPST0:            1;
             _IO PPST1:            1;
             _IO PPST2:            1;
             _IO PPST3:            1;
             _IO PPST4:            1;
             _IO PPST5:            1;
             _IO PPST6:            1;
             _IO PPST7:            1;
             _IO LSTCH:            4;
              };
    struct {
             _IO PPST:             8;
             _IO LSTCH0:           1;
             _IO LSTCH1:           1;
             _IO LSTCH2:           1;
             _IO LSTCH3:           1;
             };
}DMACS1bits;

#define DMACS1    ((DMACS1bits*)(DMACS1_BASE))
/*****************************************************************************/
typedef union
 {
  struct
   {
    _IO DSADRR:                 16;
    };
  }DSADRbits;

#define DSADR    ((DSADRbits*)(DSADR_BASE))
/*****************************************************************************/
//                      GPIO (PORT) REGISTRI:(21 registar)
//                      (KONTROLA DIGITALNIH I/O PINOVA)
/*****************************************************************************/
typedef union{
  struct{
         _IO TRIS:              16;
         };
  struct{
         _IO TRISB0:             1;
         _IO TRISB1:             1;
         _IO TRISB2:             1;
         _IO TRISB3:             1;
         _IO TRISB4:             1;
         _IO TRISB5:             1;
         _IO TRISB6:             1;
         _IO TRISB7:             1;
         _IO TRISB8:             1;
         _IO TRISB9:             1;
         _IO TRISB10:            1;
         _IO TRISB11:            1;
         _IO TRISB12:            1;
         _IO TRISB13:            1;
         _IO TRISB14:            1;
         _IO TRISB15:            1;
          };
}TRISBbits;

#define TRISB    ((TRISBbits*)(TRISB_BASE))
/*****************************************************************************/
typedef union{
  struct{
         _IO PORT:              16;
         };
  struct{
         _IO RB0:                1;
         _IO RB1:                1;
```

```
4233            _IO RB2:                  1;
4234            _IO RB3:                  1;
4235            _IO RB4:                  1;
4236            _IO RB5:                  1;
4237            _IO RB6:                  1;
4238            _IO RB7:                  1;
4239            _IO RB8:                  1;
4240            _IO RB9:                  1;
4241            _IO RB10:                 1;
4242            _IO RB11:                 1;
4243            _IO RB12:                 1;
4244            _IO RB13:                 1;
4245            _IO RB14:                 1;
4246            _IO RB15:                 1;
4247             };
4248    }PORTBbits;
4249
4250    #define PORTB   ((PORTBbits*)(PORTB_BASE))
4251    /*****************************************************************************/
4252    typedef union{
4253      struct{
4254            _IO LAT:                 16;
4255            };
4256      struct{
4257            _IO LB0:                  1;
4258            _IO LB1:                  1;
4259            _IO LB2:                  1;
4260            _IO LB3:                  1;
4261            _IO LB4:                  1;
4262            _IO LB5:                  1;
4263            _IO LB6:                  1;
4264            _IO LB7:                  1;
4265            _IO LB8:                  1;
4266            _IO LB9:                  1;
4267            _IO LB10:                 1;
4268            _IO LB11:                 1;
4269            _IO LB12:                 1;
4270            _IO LB13:                 1;
4271            _IO LB14:                 1;
4272            _IO LB15:                 1;
4273            };
4274      struct{
4275            _IO LATB0:                1;
4276            _IO LATB1:                1;
4277            _IO LATB2:                1;
4278            _IO LATB3:                1;
4279            _IO LATB4:                1;
4280            _IO LATB5:                1;
4281            _IO LATB6:                1;
4282            _IO LATB7:                1;
4283            _IO LATB8:                1;
4284            _IO LATB9:                1;
4285            _IO LATB10:               1;
4286            _IO LATB11:               1;
4287            _IO LATB12:               1;
4288            _IO LATB13:               1;
4289            _IO LATB14:               1;
4290            _IO LATB15:               1;
4291              };
4292    }LATBbits;
4293
4294    #define LATB   ((LATBbits*)(LATB_BASE))
4295    /*****************************************************************************/
4296    typedef union{
4297      struct{
4298            _IO:                     12;
4299            _IO TRIS:                 4;
4300           };
4301      struct{
4302            _IO:                     12;
4303            _IO TRISC12:              1;
4304            _IO TRISC13:              1;
4305            _IO TRISC14:              1;
```

```
4306            _IO TRISC15:              1;
4307             };
4308    }TRISCbits;
4309
4310    #define TRISC    ((TRISCbits*)(TRISC_BASE))
4311    /*****************************************************************************/
4312    typedef union{
4313      struct{
4314             _IO:                     12;
4315             _IO PORT:                 4;
4316             };
4317      struct{
4318             _IO:                     12;
4319          _IO RC12:                    1;
4320          _IO RC13:                    1;
4321          _IO RC14:                    1;
4322          _IO RC15:                    1;
4323             };
4324    }PORTCbits;
4325
4326    #define PORTC    ((PORTCbits*)(PORTC_BASE))
4327    /*****************************************************************************/
4328    typedef union{
4329      struct{
4330             _IO:                     12;
4331             _IO LAT:                  4;
4332            };
4333      struct{
4334             _IO:                     12;
4335             _IO LC12:                 1;
4336             _IO LC13:                 1;
4337             _IO LC14:                 1;
4338             _IO LC15:                 1;
4339            };
4340      struct{
4341             _IO:                     12;
4342             _IO LATC12:               1;
4343             _IO LATC13:               1;
4344             _IO LATC14:               1;
4345             _IO LATC15:               1;
4346             };
4347    }LATCbits;
4348
4349    #define LATC    ((LATCbits*)(LATC_BASE))
4350    /*****************************************************************************/
4351    typedef union{
4352      struct{
4353             _IO TRIS:                12;
4354             };
4355      struct{
4356             _IO TRISD0:               1;
4357             _IO TRISD1:               1;
4358             _IO TRISD2:               1;
4359             _IO TRISD3:               1;
4360             _IO TRISD4:               1;
4361             _IO TRISD5:               1;
4362             _IO TRISD6:               1;
4363             _IO TRISD7:               1;
4364             _IO TRISD8:               1;
4365             _IO TRISD9:               1;
4366             _IO TRISD10:              1;
4367             _IO TRISD11:              1;
4368            };
4369    }TRISDbits;
4370
4371    #define TRISD    ((TRISDbits*)(TRISD_BASE))
4372    /*****************************************************************************/
4373    typedef union{
4374      struct{
4375             _IO PORT:                12;
4376             };
4377      struct{
4378             _IO RD0:                  1;
```

```
4379            _IO RD1:                  1;
4380            _IO RD2:                  1;
4381            _IO RD3:                  1;
4382            _IO RD4:                  1;
4383            _IO RD5:                  1;
4384            _IO RD6:                  1;
4385            _IO RD7:                  1;
4386            _IO RD8:                  1;
4387            _IO RD9:                  1;
4388            _IO RD10:                 1;
4389            _IO RD11:                 1;
4390             };
4391   }PORTDbits;
4392
4393   #define PORTD   ((PORTDbits*)(PORTD_BASE))
4394   /*****************************************************************************/
4395   typedef union{
4396     struct{
4397            _IO LAT:                12;
4398            };
4399     struct{
4400            _IO LD0:                  1;
4401            _IO LD1:                  1;
4402            _IO LD2:                  1;
4403            _IO LD3:                  1;
4404            _IO LD4:                  1;
4405            _IO LD5:                  1;
4406            _IO LD6:                  1;
4407            _IO LD7:                  1;
4408            _IO LD8:                  1;
4409            _IO LD9:                  1;
4410            _IO LD10:                 1;
4411            _IO LD11:                 1;
4412            };
4413     struct{
4414            _IO LATD0:                1;
4415            _IO LATD1:                1;
4416            _IO LATD2:                1;
4417            _IO LATD3:                1;
4418            _IO LATD4:                1;
4419            _IO LATD5:                1;
4420            _IO LATD6:                1;
4421            _IO LATD7:                1;
4422            _IO LATD8:                1;
4423            _IO LATD9:                1;
4424            _IO LATD10:               1;
4425            _IO LATD11:               1;
4426             };
4427   }LATDbits;
4428
4429   #define LATD   ((LATDbits*)(LATD_BASE))
4430   /*****************************************************************************/
4431   typedef union{
4432     struct{
4433            _IO ODC:                12;
4434            };
4435     struct{
4436            _IO ODCD0:                1;
4437            _IO ODCD1:                1;
4438            _IO ODCD2:                1;
4439            _IO ODCD3:                1;
4440            _IO ODCD4:                1;
4441            _IO ODCD5:                1;
4442            _IO ODCD6:                1;
4443            _IO ODCD7:                1;
4444            _IO ODCD8:                1;
4445            _IO ODCD9:                1;
4446            _IO ODCD10:               1;
4447            _IO ODCD11:               1;
4448             };
4449   }ODCDbits;
4450
4451   #define ODCD   ((ODCDbits*)(ODCD_BASE))
```

```
4452  /*****************************************************************************/
4453  typedef union{
4454    struct{
4455            _IO TRIS:                8;
4456           };
4457    struct{
4458            _IO TRISE0:              1;
4459            _IO TRISE1:              1;
4460            _IO TRISE2:              1;
4461            _IO TRISE3:              1;
4462            _IO TRISE4:              1;
4463            _IO TRISE5:              1;
4464            _IO TRISE6:              1;
4465            _IO TRISE7:              1;
4466           };
4467  }TRISEbits;
4468
4469  #define TRISE    ((TRISEbits*)(TRISE_BASE))
4470  /*****************************************************************************/
4471  typedef union{
4472    struct{
4473            _IO PORT:                8;
4474           };
4475    struct{
4476            _IO RE0:                 1;
4477            _IO RE1:                 1;
4478            _IO RE2:                 1;
4479            _IO RE3:                 1;
4480            _IO RE4:                 1;
4481            _IO RE5:                 1;
4482            _IO RE6:                 1;
4483            _IO RE7:                 1;
4484           };
4485  }PORTEbits;
4486
4487  #define PORTE    ((PORTEbits*)(PORTE_BASE))
4488  /*****************************************************************************/
4489  typedef union{
4490    struct{
4491            _IO LAT:                 8;
4492           };
4493    struct{
4494            _IO LE0:                 1;
4495            _IO LE1:                 1;
4496            _IO LE2:                 1;
4497            _IO LE3:                 1;
4498            _IO LE4:                 1;
4499            _IO LE5:                 1;
4500            _IO LE6:                 1;
4501            _IO LE7:                 1;
4502           };
4503    struct{
4504            _IO LATE0:               1;
4505            _IO LATE1:               1;
4506            _IO LATE2:               1;
4507            _IO LATE3:               1;
4508            _IO LATE4:               1;
4509            _IO LATE5:               1;
4510            _IO LATE6:               1;
4511            _IO LATE7:               1;
4512           };
4513  }LATEbits;
4514
4515  #define LATE    ((LATEbits*)(LATE_BASE))
4516  /*****************************************************************************/
4517  typedef union{
4518    struct{
4519            _IO TRIS:                7;
4520           };
4521    struct{
4522            _IO TRISF0:              1;
4523            _IO TRISF1:              1;
4524            _IO TRISF2:              1;
```

```
4525            _IO TRISF3:             1;
4526            _IO TRISF4:             1;
4527            _IO TRISF5:             1;
4528            _IO TRISF6:             1;
4529            };
4530    }TRISFbits;
4531
4532    #define TRISF   ((TRISFbits*)(TRISF_BASE))
4533    /*****************************************************************************/
4534    typedef union{
4535      struct{
4536            _IO PORT:               7;
4537            };
4538      struct{
4539            _IO RF0:                1;
4540            _IO RF1:                1;
4541            _IO RF2:                1;
4542            _IO RF3:                1;
4543            _IO RF4:                1;
4544            _IO RF5:                1;
4545            _IO RF6:                1;
4546            };
4547    }PORTFbits;
4548
4549    #define PORTF   ((PORTFbits*)(PORTF_BASE))
4550    /*****************************************************************************/
4551    typedef union{
4552      struct{
4553            _IO LAT:                7;
4554            };
4555      struct{
4556            _IO LF0:                1;
4557            _IO LF1:                1;
4558            _IO LF2:                1;
4559            _IO LF3:                1;
4560            _IO LF4:                1;
4561            _IO LF5:                1;
4562            _IO LF6:                1;
4563            };
4564      struct{
4565            _IO LATF0:              1;
4566            _IO LATF1:              1;
4567            _IO LATF2:              1;
4568            _IO LATF3:              1;
4569            _IO LATF4:              1;
4570            _IO LATF5:              1;
4571            _IO LATF6:              1;
4572            };
4573    }LATFbits;
4574
4575    #define LATF   ((LATFbits*)(LATF_BASE))
4576    /*****************************************************************************/
4577    typedef union{
4578      struct{
4579            _IO ODC:                7;
4580            };
4581      struct{
4582            _IO ODCF0:              1;
4583            _IO ODCF1:              1;
4584            _IO ODCF2:              1;
4585            _IO ODCF3:              1;
4586            _IO ODCF4:              1;
4587            _IO ODCF5:              1;
4588            _IO ODCF6:              1;
4589            };
4590    }ODCFbits;
4591
4592    #define ODCF   ((ODCFbits*)(ODCF_BASE))
4593    /*****************************************************************************/
4594    typedef union{
4595      struct{
4596            _IO:                    2;
4597            _IO TRISL:              2;
```

```
4598            _IO:                    2;
4599            _IO TRISH:              4;
4600            };
4601      struct{
4602            _IO:                    2;
4603            _IO TRISG2:             1;
4604            _IO TRISG3:             1;
4605            _IO:                    2;
4606            _IO TRISG6:             1;
4607            _IO TRISG7:             1;
4608            _IO TRISG8:             1;
4609            _IO TRISG9:             1;
4610            };
4611    }TRISGbits;
4612
4613    #define TRISG    ((TRISGbits*)(TRISG_BASE))
4614    /*****************************************************************************/
4615    typedef union{
4616      struct{
4617            _IO:                    2;
4618            _IO PORTL:              2;
4619            _IO :                   2;
4620            _IO PORTH:              4;
4621            };
4622      struct{
4623            _IO:                    2;
4624            _IO RG2:                1;
4625            _IO RG3:                1;
4626            _IO:                    2;
4627            _IO RG6:                1;
4628            _IO RG7:                1;
4629            _IO RG8:                1;
4630            _IO RG9:                1;
4631            };
4632    }PORTGbits;
4633
4634    #define PORTG    ((PORTGbits*)(PORTG_BASE))
4635    /*****************************************************************************/
4636    typedef union{
4637      struct{
4638            _IO:                    2;
4639            _IO LATL:               2;
4640            _IO:                    2;
4641            _IO LATH:               4;
4642            };
4643      struct{
4644            _IO:                    2;
4645            _IO LG2:                1;
4646            _IO LG3:                1;
4647            _IO:                    2;
4648            _IO LG6:                1;
4649            _IO LG7:                1;
4650            _IO LG8:                1;
4651            _IO LG9:                1;
4652            };
4653      struct{
4654            _IO:                    2;
4655            _IO LATG2:              1;
4656            _IO LATG3:              1;
4657            _IO:                    2;
4658            _IO LATG6:              1;
4659            _IO LATG7:              1;
4660            _IO LATG8:              1;
4661            _IO LATG9:              1;
4662            };
4663    }LATGbits;
4664
4665    #define LATG    ((LATGbits*)(LATG_BASE))
4666    /*****************************************************************************/
4667    typedef union{
4668      struct{
4669            _IO:                    2;
4670            _IO ODCL:               2;
```

```
4671            _IO:                    2;
4672            _IO ODCH:               4;
4673            };
4674      struct{
4675            _IO:                    2;
4676            _IO ODCG2:              1;
4677            _IO ODCG3:              1;
4678            _IO:                    2;
4679            _IO ODCG6:              1;
4680            _IO ODCG7:              1;
4681            _IO ODCG8:              1;
4682            _IO ODCG9:              1;
4683            };
4684    }ODCGbits;
4685
4686    #define ODCG    ((ODCGbits*)(ODCG_BASE))
4687    /*****************************************************************************/
4688    //                  KONTROLNI REGISTRI SISTEMA (7 registara):
4689    //
4690    /*****************************************************************************/
4691    typedef union{
4692      struct{
4693            _IO POR:                1;
4694            _IO BOR:                1;
4695            _IO IDLE:               1;
4696            _IO SLEEP:              1;
4697            _IO WDTO:               1;
4698            _IO SWDTEN:             1;
4699            _IO SWR:                1;
4700            _IO EXTR:               1;
4701            _IO VREGS:              1;
4702            _IO:                    5;
4703            _IO IOPUWR:             1;
4704            _IO TRAPR:              1;
4705             };
4706    }RCONbits;
4707
4708    #define RCON    ((RCONbits*)(RCON_BASE))
4709    /*****************************************************************************/
4710    typedef union{
4711        struct {
4712                _IO OSWEN:          1;
4713                _IO LPOSCEN:        1;
4714                _IO:                1;
4715                _IO CF:             1;
4716                _IO:                1;
4717                _IO LOCK:           1;
4718                _IO:                1;
4719                _IO CLKLOCK:        1;
4720                _IO NOSC:           3;
4721                _IO:                1;
4722                _IO COSC:           3;
4723                };
4724        struct {
4725                _IO:                8;
4726                _IO NOSC0:          1;
4727                _IO NOSC1:          1;
4728                _IO NOSC2:          1;
4729                _IO:                1;
4730                _IO COSC0:          1;
4731                _IO COSC1:          1;
4732                _IO COSC2:          1;
4733                };
4734    }OSCCONbits;
4735
4736    #define OSCCON    ((OSCCONbits*)(OSCCON_BASE))
4737    /*****************************************************************************/
4738    typedef union{
4739        struct {
4740                _IO PLLPRE:         5;
4741                _IO:                1;
4742                _IO PLLPOST:        2;
4743                _IO FRCDIV:         3;
```

```
4744                _IO DOZEN:              1;
4745                _IO DOZE:               3;
4746                _IO ROI:                1;
4747                };
4748        struct {
4749                _IO PLLPRE0:            1;
4750                _IO PLLPRE1:            1;
4751                _IO PLLPRE2:            1;
4752                _IO PLLPRE3:            1;
4753                _IO PLLPRE4:            1;
4754                _IO:                    1;
4755                _IO PLLPOST0:           1;
4756                _IO PLLPOST1:           1;
4757                _IO FRCDIV0:            1;
4758                _IO FRCDIV1:            1;
4759                _IO FRCDIV2:            1;
4760                _IO:                    1;
4761                _IO DOZE0:              1;
4762                _IO DOZE1:              1;
4763                _IO DOZE2:              1;
4764                 };
4765    }CLKDIVbits;
4766
4767    #define CLKDIV    ((CLKDIVbits*)(CLKDIV_BASE))
4768    /*****************************************************************************/
4769    typedef union{
4770        struct {
4771                _IO PLLDIV:             9;
4772                };
4773        struct {
4774                _IO PLLDIV0:            1;
4775                _IO PLLDIV1:            1;
4776                _IO PLLDIV2:            1;
4777                _IO PLLDIV3:            1;
4778                _IO PLLDIV4:            1;
4779                _IO PLLDIV5:            1;
4780                _IO PLLDIV6:            1;
4781                _IO PLLDIV7:            1;
4782                _IO PLLDIV8:            1;
4783                 };
4784    }PLLFBDbits;
4785
4786    #define PLLFBD    ((PLLFBDbits*)(PLLFBD_BASE))
4787    /*****************************************************************************/
4788    typedef union{
4789        struct {
4790                _IO TUN:                6;
4791                };
4792        struct {
4793                _IO TUN0:               1;
4794                _IO TUN1:               1;
4795                _IO TUN2:               1;
4796                _IO TUN3:               1;
4797                _IO TUN4:               1;
4798                _IO TUN5:               1;
4799                 };
4800    }OSCTUNbits;
4801
4802    #define OSCTUN    ((OSCTUNbits*)(OSCTUN_BASE))
4803    /*****************************************************************************/
4804    typedef union{
4805        struct {
4806                _IO NVMOP:              4;
4807                _IO:                    2;
4808                _IO ERASE:              1;
4809                _IO:                    6;
4810                _IO WRERR:              1;
4811                _IO WREN:               1;
4812                _IO WR:                 1;
4813                };
4814        struct {
4815                _IO NVMOP0:             1;
4816                _IO NVMOP1:             1;
```

```
4817                _IO NVMOP2:           1;
4818                _IO NVMOP3:           1;
4819                 };
4820    }NVMCONbits;
4821
4822    #define NVMCON    ((NVMCONbits*)(NVMCON_BASE))
4823    /*****************************************************************************/
4824    typedef union
4825     {
4826      struct
4827       {
4828        _IO NVMKEYR:                  8;
4829       };
4830      }NVMKEYbits;
4831
4832    #define NVMKEY    ((NVMKEYbits*)(NVMKEY_BASE))
4833    /*****************************************************************************/
4834    //                          PMD KONTROLNI REGISTRI:(3 registra)
4835    //                          (ONEMOGUCAVANJE MODULA PERIFERALA)
4836    /*****************************************************************************/
4837    typedef union{
4838     struct{
4839            _IO AD1MD:                 1;
4840            _IO C1MD:                  1;
4841            _IO :                      1;
4842            _IO SPI1MD:                1;
4843            _IO SPI2MD:                1;
4844            _IO U1MD:                  1;
4845            _IO U2MD:                  1;
4846            _IO I2C1MD:                1;
4847            _IO:                       1;
4848            _IO PWMMD:                 1;
4849            _IO QEIMD:                 1;
4850            _IO T1MD:                  1;
4851            _IO T2MD:                  1;
4852            _IO T3MD:                  1;
4853            _IO T4MD:                  1;
4854            _IO T5MD:                  1;
4855              };
4856    }PMD1bits;
4857
4858    #define PMD1    ((PMD1bits*)(PMD1_BASE))
4859    /*****************************************************************************/
4860    typedef union{
4861      struct{
4862             _IO OC1MD:                1;
4863             _IO OC2MD:                1;
4864             _IO OC3MD:                1;
4865             _IO OC4MD:                1;
4866             _IO OC5MD:                1;
4867             _IO OC6MD:                1;
4868             _IO OC7MD:                1;
4869             _IO OC8MD:                1;
4870             _IO IC1MD:                1;
4871             _IO IC2MD:                1;
4872             _IO IC3MD:                1;
4873             _IO IC4MD:                1;
4874             _IO IC5MD:                1;
4875             _IO IC6MD:                1;
4876             _IO IC7MD:                1;
4877             _IO IC8MD:                1;
4878               };
4879    }PMD2bits;
4880
4881    #define PMD2    ((PMD2bits*)(PMD2_BASE))
4882    /*****************************************************************************/
4883    typedef union{
4884     struct{
4885            _IO:                       1;
4886            _IO I2C2MD:                1;
4887            _IO:                      10;
4888            _IO T6MD:                  1;
4889            _IO T7MD:                  1;
```

```
4890            _IO T8MD:                   1;
4891            _IO T9MD:                   1;
4892             };
4893    }PMD3bits;
4894
4895    #define PMD3    ((PMD3bits*)(PMD3_BASE))
4896    /*****************************************************************************/
4897
4898    #endif
4899
```