```
217  ;-------------------------------------------------------------------------
218                 RSEG    INFOD   ; Define Flash segment 01000h ~ 0103Fh
219                                 ; Internal (Sensor) I²Cbus
220                 EVEN            ; 01000h~0100Fh 1st PCF(a)
221                                 ; 01010~0101Fh 2nd PCF(b)
222                                 ; 01020~0103Fh Internal Used Parametermap
223  ;-------------------------------------------------------------------------
224  //          Bit: 76543210        Control/status register
225  PCFa00      DB   00000000h    // Emulatet memory location 00 A
226  //                   ||||||||'------> timer flag
227  //                   |||||||'-------> alarm flag
228  //                   ||||||'---+-[0]> alarm enable bit = Disable
229  //                   |||||     '-[1]> alarm enable bit = Enable
230  //                   |||||'----+-[0]> mask flag =read locations 05 to 06 unmasked
231  //                   ||||      '-[1]> mask flag =read date and month count directly
232  //                   ||'+----+-[00]> clock mode 32.768 kHz
233  //                   ||       +-[01]> clock mode 50 Hz
234  //                   ||       +-[10]> event-counter mode
235  //                   ||       '-[11]> Advanced modes(Setting from FRAM used)
236  //                   |'-------+-[0]> count
237  //                   |        '-[1]> store and hold last count in capture latches
238  //                   '--------+-[0]> count pulses
239  //                            '-[1]> stop counting, reset divider
240
241  //          Bit: 76543210        Emulatet memory location 01 A
242  PCFa01      DB   00000000h    /* hundredth of a second *//// Counter
243  //                   ||||'+++------> 1/100 s                     D0
244  //                   '+++----------> 1/10 s                      D1
245
246  //          Bit: 76543210        Emulatet memory location 02 A
247  PCFa02      DB   00000000h    /* second */ // Counter
248  //                   ||||'+++------>  1 s         D2
249  //                   '+++----------> 10 s         D3
250
251  //          Bit: 76543210        Emulatet memory location 03 A
252  PCFa03      DB   00000000h    /* minutes *//// Counter
253  //                   ||||'+++------>  1 min       D4
254  //                   '+++----------> 10 min       D5
255
256  //          Bit: 76543210        Emulatet memory location 04 A
257  PCFa04      DB   00000000h    /* hours */  // Counter
258  //                   ||||'+++------>  1 h         free FRAM
259  //                   ||'+----------> 10 h         free FRAM
260  //                   |'-------+-[0]> AM
261  //                   |         '-[1]> PM
262  //                   '--------+-[0]> 24 h format, AM/PM flag remains unchanged
263  //                            '-[1]> 12 h format, AM/PM flag will be updated
264
265  //          Bit: 76543210        Emulatet memory location 05 A
266  PCFa05      DB   00000000h    /* year/day */         // Counter
267  //                   ||||'+++------> unit days BCD          free FRAM
268  //                   ||'+----------> ten days (0 to 3 binary) free FRAM
269  //                   '+------------> year (0 to 3 binary)    free FRAM
270
271  //          Bit: 76543210        Emulatet memory location 06 A
272  PCFa06      DB   00000000h    /* weekday/month */        // Counter
273  //                   ||||'+++------> unit months BCD         free FRAM
274  //                   ||||'---------> ten months             free FRAM
275  //                   '++-----------> weekdays (0 to 6 binary) free FRAM
276
277  //          Bit: 76543210        Emulatet memory location 07 A
278  PCFa07      DB   00000000h    /* Day */    // Counter
279  //                   ||||'+++------>  1 day       timer T0
280  //                   '+++----------> 10 day       timer T1
281
282  //          Bit: 76543210        Emulatet memory location 08 A
283  PCFa08      DB   00000000h    /* Alarm control Clock Mode */ // Alarm control event Mode
284  //                   |||||'+++[000]> no timer                       no timer
285  //                   |||||   +[001]> hundredths of a second         units
286  //                   |||||   +[010]> seconds                        100
287  //                   |||||   +[011]> minutes                        10 000
288  //                   |||||   +[100]> hours                          1 000 000
289  //                   |||||   +[101]> days                           not allowed
290  //                   |||||   +[110]> not used                       not allowed
291  //                   |||||   '[111]> test mode, all counters in parallel
292  //                   ||||'---+--[0]> timer flag, no interrupt (Disabled)
293  //                   ||||    +--[1]> timer flag, interrupt    (Enabled)
294  //                   ||'+----+-[00]> no clock alarm function        no event alarm
295  //                   ||       +-[01]> daily alarm function          event alarm
296  //                   ||       +-[10]> weekday alarm function        not allowed
297  //                   ||       '-[11]> dated alarm function          not allowed
298  //                   |'-------+-[0]> no timer alarm (Disabled)
299  //                   |         '-[1]> timer alarm    (Enabled)
300  //                   '--------+-[0]> alarm flag, no interrupt (Disabled)
301  //                            '-[1]> alarm flag, interrupt   (Enabled)
302
```

```
303   //            Bit: 76543210      Emulatet memory location 09 A
304   PCFa09    DB    00000000h    /* hundredth of a second alarm*/// Counter
305   //            ||||'+++------> 1/100 s                      D0
306   //            '+++---------> 1/10 s                        D1
307
308   //            Bit: 76543210      Emulatet memory location 0A A
309   PCFa0A    DB    00000000h    /* alarm second *//// Counter
310   //            ||||'+++------>  1 s          D2
311   //            '+++---------> 10 s          D3
312
313   //            Bit: 76543210      Emulatet memory location 0B A
314   PCFa0B    DB    00000000h    /* alarm minutes *//// Counter
315   //            ||||'+++------>  1 min          D4
316   //            '+++---------> 10 min          D5
317
318   //            Bit: 76543210      Emulatet memory location 0C A
319   PCFa0C    DB    00000000h    /* alarm hours */  // Counter
320   //            ||||'+++------>  1 h             free FRAM
321   //            ||'+---------> 10 h             free FRAM
322   //            |'-------+-[0]> AM
323   //            |          '-[1]> PM
324   //            '--------+-[0]> 24 h format, AM/PM flag remains unchanged
325   //                      '-[1]> 12 h format, AM/PM flag will be updated
326
327   //            Bit: 76543210      Emulatet memory location 0D A
328   PCFa0D    DB    00000000h    /* alarmyear/day */      // Counter
329   //            ||||'+++------> unit days BCD          free FRAM
330   //            ||'+---------> ten days (0 to 3 binary) free FRAM
331   //            '+-----------> year (0 to 3 binary)    free FRAM
332
333   //            Bit: 76543210      Emulatet memory location 0E A
334   PCFa0E    DB    00000000h    /* alarm weekday/month *//// Counter
335   //            |||||||'------>  weekday 0 enabled when set    free FRAM
336   //            ||||||'------->  weekday 1 enabled when set    free FRAM
337   //            |||||'-------->  weekday 2 enabled when set    free FRAM
338   //            ||||'--------->  weekday 3 enabled when set    free FRAM
339   //            |||'---------->  weekday 4 enabled when set    free FRAM
340   //            ||'----------->  weekday 5 enabled when set    free FRAM
341   //            |'------------>  weekday 6 enabled when set    free FRAM
342   //            '------------->  Not used    free FRAM
343
344   //            Bit: 76543210      Emulatet memory location 09 A
345   PCFa0F    DB    00000000h    /* alarm Timer*/// Counter
346   //            ||||'+++------>  1             D0
347   //            '+++---------> 10             D1
348
349   //            Bit: 76543210      Control/status register
350   PCFb00    DB    00000000h    // Emulatet memory location 00 A
351   //            |||||||'------> timer flag
352   //            ||||||'-------> alarm flag
353   //            |||||'---+-[0]> alarm enable bit = Disable
354   //            |||||      '-[1]> alarm enable bit = Enable
355   //            ||||'----+-[0]> mask flag =read locations 05 to 06 unmasked
356   //            ||||      '-[1]> mask flag =read date and month count directly
357   //            ||'+----+-[00]> clock mode 32.768 kHz
358   //            ||      +-[01]> clock mode 50 Hz
359   //            ||      +-[10]> event-counter mode
360   //            ||      '-[11]> Advanced modes(Setting from FRAM used)
361   //            |'-------+-[0]> count
362   //            |          '-[1]> store and hold last count in capture latches
363   //            '--------+-[0]> count pulses
364   //                      '-[1]> stop counting, reset divider
365
366   //            Bit: 76543210      Emulatet memory location 01 B
367   PCFb01    DB    00000000h    /* hundredth of a second *//// Counter
368   //            ||||'+++------> 1/100 s                      D0
369   //            '+++---------> 1/10 s                        D1
370
371   //            Bit: 76543210      Emulatet memory location 02 B
372   PCFb02    DB    00000000h    /* second */ // Counter
373   //            ||||'+++------>  1 s          D2
374   //            '+++---------> 10 s          D3
375
376   //            Bit: 76543210      Emulatet memory location 03 B
377   PCFb03    DB    00000000h    /* minutes *//// Counter
378   //            ||||'+++------>  1 min          D4
379   //            '+++---------> 10 min          D5
380
381   //            Bit: 76543210      Emulatet memory location 04 B
382   PCFb04    DB    00000000h    /* hours */  // Counter
383   //            ||||'+++------>  1 h          free FRAM
384   //            ||'+---------> 10 h          free FRAM
385   //            |'-------+-[0]> AM
386   //            |          '-[1]> PM
387   //            '--------+-[0]> 24 h format, AM/PM flag remains unchanged
388   //                      '-[1]> 12 h format, AM/PM flag will be updated
```

```
389
390    //          Bit: 76543210      Emulatet memory location 05 B
391    PCFb05    DB    00000000h    /* year/day */          // Counter
392    //              ||||'+++------> unit days BCD          free FRAM
393    //              ||'+---------> ten days (0 to 3 binary) free FRAM
394    //              '+-----------> year (0 to 3 binary)    free FRAM
395
396    //          Bit: 76543210      Emulatet memory location 06 B
397    PCFb06    DB    00000000h    /* weekday/month */      // Counter
398    //              ||||'+++------> unit months BCD         free FRAM
399    //              |||'---------> ten months             free FRAM
400    //              '++----------> weekdays (0 to 6 binary) free FRAM
401
402    //          Bit: 76543210      Emulatet memory location 07 B
403    PCFb07    DB    00000000h    /* Day */     // Counter
404    //              ||||'+++------>  1 day       timer T0
405    //              '+++---------> 10 day       timer T1
406
407    //          Bit: 76543210      Emulatet memory location 08 B
408    PCFb08    DB    00000000h    /* Alarm control Clock Mode */ // Alarm control event Mode
409    //              |||||'+++[000]> no timer                 no timer
410    //              |||||  +[001]> hundredths of a second    units
411    //              |||||  +[010]> seconds                   100
412    //              |||||  +[011]> minutes                   10 000
413    //              |||||  +[100]> hours                     1 000 000
414    //              |||||  +[101]> days                      not allowed
415    //              |||||  +[110]> not used                  not allowed
416    //              |||||  '[111]> test mode, all counters in parallel
417    //              ||||'---+--[0]> timer flag, no interrupt (Disabled)
418    //              ||||   +--[1]> timer flag, interrupt    (Enabled)
419    //              |'+----+-[00]> no clock alarm function        no event alarm
420    //              |      +-[01]> daily alarm function           event alarm
421    //              |      +-[10]> weekday alarm function         not allowed
422    //              |      '-[11]> dated alarm function           not allowed
423    //              '-------+-[0]> no timer alarm (Disabled)
424    //                      '-[1]> timer alarm   (Enabled)
425    //              '--------+-[0]> alarm flag, no interrupt (Disabled)
426    //                       '-[1]> alarm flag, interrupt    (Enabled)
427
428    //          Bit: 76543210      Emulatet memory location 09 B
429    PCFb09    DB    00000000h    /* hundredth of a second alarm*/// Counter
430    //              ||||'+++------> 1/100 s                   D0
431    //              '+++---------> 1/10 s                    D1
432
433    //          Bit: 76543210      Emulatet memory location 0A B
434    PCFb0A    DB    00000000h    /* alarm second */// Counter
435    //              ||||'+++------>  1 s          D2
436    //              '+++---------> 10 s          D3
437
438    //          Bit: 76543210      Emulatet memory location 0B B
439    PCFb0B    DB    00000000h    /* alarm minutes */// Counter
440    //              ||||'+++------>  1 min          D4
441    //              '+++---------> 10 min          D5
442
443    //          Bit: 76543210      Emulatet memory location 0C B
444    PCFb0C    DB    00000000h    /* alarm hours */  // Counter
445    //              ||||'+++------>  1 h            free FRAM
446    //              ||'+---------> 10 h            free FRAM
447    //              |'-------+-[0]> AM
448    //              |        '-[1]> PM
449    //              '--------+-[0]> 24 h format, AM/PM flag remains unchanged
450    //                       '-[1]> 12 h format, AM/PM flag will be updated
451
452    //          Bit: 76543210      Emulatet memory location 0D B
453    PCFb0D    DB    00000000h    /* alarmyear/day */      // Counter
454    //              ||||'+++------> unit days BCD          free FRAM
455    //              ||'+---------> ten days (0 to 3 binary) free FRAM
456    //              '+-----------> year (0 to 3 binary)    free FRAM
457
458    //          Bit: 76543210      Emulatet memory location 0E B
459    PCFb0E    DB    00000000h    /* alarm weekday/month */// Counter
460    //              |||||||'------>  weekday 0 enabled when set   free FRAM
461    //              ||||||'------->  weekday 1 enabled when set   free FRAM
462    //              |||||'-------->  weekday 2 enabled when set   free FRAM
463    //              ||||'--------->  weekday 3 enabled when set   free FRAM
464    //              |||'---------->  weekday 4 enabled when set   free FRAM
465    //              ||'----------->  weekday 5 enabled when set   free FRAM
466    //              |'------------>  weekday 6 enabled when set   free FRAM
467    //              '------------->  Not used    free FRAM
468
469    //          Bit: 76543210      Emulatet memory location 09 B
470    PCFb0F    DB    00000000h    /* alarm Timer*/// Counter
471    //              ||||'+++------>  1            D0
472    //              '+++---------> 10            D1
473
```