

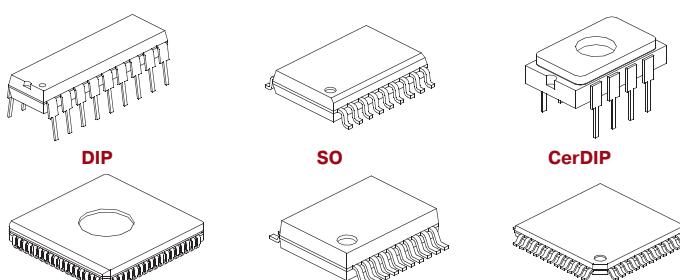
## PIC КОНТРОЛЛЕРЫ



## СИСТЕМА ОБОЗНАЧЕНИЙ

| PIC16F84                    | 04                      | I | P |
|-----------------------------|-------------------------|---|---|
| 1                           | 2                       | 3 | 4 |
| 1. Тип процессора           | SN – 8-SOIC (0,15")     |   |   |
| 2. Тактовая частота, МГц    | SM – 8-SOIC (0,207")    |   |   |
| 3. Диапазон раб. температур | SS – SSOP               |   |   |
| не обознач.                 | JW – керам. DIP с окном |   |   |
| - 0...+70°C                 | L – PLCC                |   |   |
| I – -40...+85°C             | PQ – PQFP               |   |   |
| E – -40...+125°C            | PT – TQFP               |   |   |
| 4. Тип корпуса              | SL – 14-SIOC (0,15")    |   |   |
| P – PDIP (0,6")             | CL – керам. LCC с окном |   |   |
| SO – SOIC (0,3")            |                         |   |   |
| SP – PDIP (0,3")            |                         |   |   |

## ТИПЫ КОРПУСОВ



| Тип корпуса   | Шаг выводов, мм | Ширина корпуса, мм |
|---------------|-----------------|--------------------|
| DIP (0,3")    | 2.54            | 7.62               |
| DIP (0,6")    | 2.54            | 15.24              |
| SO (0,15")    | 1.27            | 3.81               |
| SO (0,207")   | 1.27            | 5.25               |
| SO (0,3")     | 1.27            | 7.5                |
| SSOP (0,209") | 0.65            | 5.25               |
| PLCC          | 1.27            |                    |
| PQFP          | 0.8             |                    |
| TQFP          | 0.5             |                    |

| Наименование | Память программ (слов) | EEPROM данных, байт | ОЗУ данных, байт | Макс. такт. частота, МГц | Разряды ввода/вывода | АЦП (8-бит) каналов | Последоват. порты | ШИМ | Компараторы | Таймеры | ICSP | Тип корпуса                 |
|--------------|------------------------|---------------------|------------------|--------------------------|----------------------|---------------------|-------------------|-----|-------------|---------|------|-----------------------------|
| PIC 12C508A  | 512x12                 | –                   | 25               | 4                        | 6                    | –                   | –                 | –   | –           | 1+WDT   | +    | 8P, 8SM, 8JW, 8SN           |
| PIC 12C509A  | 1024x12                | –                   | 41               | 4                        | 6                    | –                   | –                 | –   | –           | 1+WDT   | +    | 8P, 8SM, 8JW, 8SN           |
| PIC 12CE518  | 512x12                 | 16                  | 25               | 4                        | 6                    | –                   | –                 | –   | –           | 1+WDT   | +    | 8P, 8SM, 8JW, 8SN           |
| PIC 12CE519  | 1024x12                | 16                  | 41               | 4                        | 6                    | –                   | –                 | –   | –           | 1+WDT   | +    | 8P, 8SM, 8JW, 8SN           |
| PIC 12C671   | 1024x14                | –                   | 128              | 10                       | 6                    | 4                   | –                 | –   | –           | 1+WDT   | +    | 8P, 8SM, 8JW                |
| PIC 12C672   | 2048x14                | –                   | 128              | 10                       | 6                    | 4                   | –                 | –   | –           | 1+WDT   | +    | 8P, 8SM, 8JW                |
| PIC 12CE673  | 1024x14                | 16                  | 128              | 10                       | 6                    | 4                   | –                 | –   | –           | 1+WDT   | +    | 8P, 8JW                     |
| PIC 12CE674  | 2048x14                | 16                  | 128              | 10                       | 6                    | 4                   | –                 | –   | –           | 1+WDT   | +    | 8P, 8JW                     |
| PIC 16C505   | 1024x12                | –                   | 72               | 20                       | 12                   | –                   | –                 | –   | –           | 1+WDT   | +    | 14P, 14JW, 14SL             |
| PIC 16C54C   | 512x12                 | –                   | 25               | 20                       | 12                   | –                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C55A   | 512x12                 | –                   | 24               | 20                       | 20                   | –                   | –                 | –   | –           | 1+WDT   | +    | 28P, 28JW, 28SP, 28SO, 28SS |
| PIC 16C56A   | 1024x12                | –                   | 25               | 20                       | 12                   | –                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C57C   | 2048x12                | –                   | 72               | 20                       | 20                   | –                   | –                 | –   | –           | 1+WDT   | +    | 28P, 28JW, 28SP, 28SO, 28SS |
| PIC 16C58B   | 2048x12                | –                   | 73               | 20                       | 12                   | –                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 14000    | 4096x14                | –                   | 192              | 20                       | 20                   | 8                   | IIC/SMB           | –   | 2           | 2+WDT   | +    | 28SP, 28SO, 28SS, 28JW      |
| PIC 16C554   | 512x14                 | –                   | 80               | 20                       | 13                   | –                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C558   | 2048x14                | –                   | 128              | 20                       | 13                   | –                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C62B   | 2048x14                | –                   | 128              | 20                       | 22                   | –                   | IIC/SPI           | 1   | –           | 3+WDT   | +    | 28SP, 28SO, 28SS, 28JW      |
| PIC 16C63A   | 4096x14                | –                   | 192              | 20                       | 22                   | –                   | USART/IIC/SPI     | 2   | –           | 3+WDT   | +    | 28SP, 28SO, 28SS, 28JW      |
| PIC 16C65B   | 4096x14                | –                   | 192              | 20                       | 33                   | –                   | USART/IIC/SPI     | 2   | –           | 3+WDT   | +    | 40P, 40JW, 44L, 44PQ, 44PT  |
| PIC 16C66    | 8192x14                | –                   | 368              | 20                       | 22                   | –                   | USART/IIC/SPI     | 2   | –           | 3+WDT   | +    | 28SP, 28SO, 28JW            |
| PIC 16C67    | 8192x14                | –                   | 368              | 20                       | 33                   | –                   | USART/IIC/SPI     | 2   | –           | 3+WDT   | +    | 40P, 40JW, 44L, 44PQ, 44PT  |
| PIC 16C620A  | 512x14                 | –                   | 96               | 20                       | 13                   | –                   | –                 | –   | 2           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C621A  | 1024x14                | –                   | 96               | 20                       | 13                   | –                   | –                 | –   | 2           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C622A  | 2048x14                | –                   | 128              | 20                       | 13                   | –                   | –                 | –   | 2           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C710   | 512x14                 | –                   | 36               | 20                       | 13                   | 4                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C711   | 1024x14                | –                   | 68               | 20                       | 13                   | 4                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C712   | 1024x14                | –                   | 128              | 20                       | 13                   | 4                   | –                 | 1   | –           | 3+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C715   | 2048x14                | –                   | 128              | 20                       | 13                   | 4                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C716   | 2048x14                | –                   | 128              | 20                       | 13                   | 4                   | –                 | 1   | –           | 3+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C717   | 2048x14                | –                   | 256              | 20                       | 16                   | 6 (10бит)           | MIIC/SPI          | 1   | –           | 3+WDT   | +    | 18P, 18JW, 18SO, 20SS       |
| PIC 16C72A   | 2048x14                | –                   | 128              | 20                       | 22                   | 5                   | IIC/SPI           | 1   | –           | 3+WDT   | +    | 28SP, 28SO, 28JW, 28SS      |
| PIC 16C73B   | 4096x14                | –                   | 192              | 20                       | 22                   | 5                   | USART/IIC/SPI     | 2   | –           | 3+WDT   | +    | 28SP, 28SO, 28JW, 28SS      |
| PIC 16C74B   | 4096x14                | –                   | 192              | 20                       | 33                   | 8                   | USART/IIC/SPI     | 2   | –           | 3+WDT   | +    | 40P, 40JW, 44L, 44PQ, 44PT  |
| PIC 16C76    | 8192x14                | –                   | 368              | 20                       | 22                   | 5                   | USART/IIC/SPI     | 2   | –           | 3+WDT   | +    | 28SP, 28SO, 28JW            |
| PIC 16C77    | 8192x14                | –                   | 368              | 20                       | 33                   | 8                   | USART/IIC/SPI     | 2   | –           | 3+WDT   | +    | 40P, 40JW, 44L, 44PQ, 44PT  |
| PIC 16F84A   | 1024x14 (Flash)        | 64                  | 68               | 20                       | 13                   | –                   | –                 | –   | –           | 1+WDT   | +    | 18P, 18SO, 20SS             |
| PIC 16F870   | 2048x14 (Flash)        | 64                  | 128              | 20                       | 22                   | 5 (10бит)           | USART             | 1   | –           | 3+WDT   | +    | 28SP, 28SO, 28SS            |
| PIC 16F871   | 2048x14 (Flash)        | 64                  | 128              | 20                       | 33                   | 8 (10бит)           | USART             | 1   | –           | 3+WDT   | +    | 40P, 44L, 44PT              |
| PIC 16F872   | 2048x14 (Flash)        | 64                  | 128              | 20                       | 22                   | 5 (10бит)           | MIIC/SPI          | 1   | –           | 3+WDT   | +    | 28SP, 28SO, 28SS            |
| PIC 16F873   | 4096x14 (Flash)        | 128                 | 192              | 20                       | 22                   | 5 (10бит)           | USART/MIIC/SPI    | 2   | –           | 3+WDT   | +    | 28SP, 28SO, 28SS            |
| PIC 16F874   | 4096x14 (Flash)        | 128                 | 192              | 20                       | 33                   | 8 (10бит)           | USART/MIIC/SPI    | 2   | –           | 3+WDT   | +    | 40P, 44L, 44PQ, 44PT        |
| PIC 16F876   | 8192x14 (Flash)        | 256                 | 368              | 20                       | 22                   | 5 (10бит)           | USART/MIIC/SPI    | 2   | –           | 3+WDT   | +    | 28SP, 28SO, 28SS            |
| PIC 16F877   | 8192x14 (Flash)        | 256                 | 368              | 20                       | 33                   | 8 (10бит)           | USART/MIIC/SPI    | 2   | –           | 3+WDT   | +    | 40P, 44L, 44PQ, 44PT        |
| PIC 17C42A   | 2048x16                | –                   | 232              | 33                       | 33                   | –                   | USART             | 2   | –           | 4+WDT   | –    | 40P, 40JW, 44L, 44PQ, 44PT  |
| PIC 17C43    | 4096x16                | –                   | 454              | 33                       | 33                   | –                   | USART             | 2   | –           | 4+WDT   | –    | 40P, 40JW, 44L, 44PQ, 44PT  |
| PIC 17C44    | 8192x16                | –                   | 454              | 33                       | 33                   | –                   | USART             | 2   | –           | 4+WDT   | –    | 40P, 40JW, 44L, 44PQ, 44PT  |
| PIC 17C752   | 8192x16                | –                   | 678              | 33                       | 50                   | 12 (10бит)          | USART(2)/MIIC/SPI | 3   | –           | 4+WDT   | +    | 68L, 64PT                   |
| PIC 17C756   | 16384x16               | –                   | 902              | 33                       | 50                   | 12 (10бит)          | USART(2)/MIIC/SPI | 3   | –           | 4+WDT   | +    | 68CL, 68L, 64PT             |
| PIC 17C762   | 8192x16                | –                   | 678              | 33                       | 66                   | 16 (10бит)          | USART(2)/MIIC/SPI | 3   | –           | 4+WDT   | +    | 80PT, 84L, 84CL             |
| PIC 17C766   | 16384x16               | –                   | 902              | 33                       | 66                   | 16 (10бит)          | USART(2)/MIIC/SPI | 3   | –           | 4+WDT   | +    | 80PT, 84L, 84CL             |
| PIC18F242    | 8192x16                | 256                 | 768              | 40                       | 23                   | 5 (10бит)           | MSSP/USART        | 2   | –           | 4+WDT   | +    | 28SP, 28SO                  |
| PIC18F252    | 16384x32               | 256                 | 1536             | 40                       | 23                   | 5 (10бит)           | MSSP/USART        | 2   | –           | 4+WDT   | +    | 28SP, 28SO                  |
| PIC18F442    | 8192x16                | 256                 | 768              | 40                       | 34                   | 8 (10бит)           | MSSP/USART/PSP    | 2   | –           | 4+WDT   | +    | 40P, 44L, 44PT              |
| PIC18F452    | 32768x32               | 256                 | 1536             | 40                       | 34                   | 8 (10бит)           | MSSP/USART/PSP    | 2   | –           | 4+WDT   | +    | 40P, 44L, 44PT              |

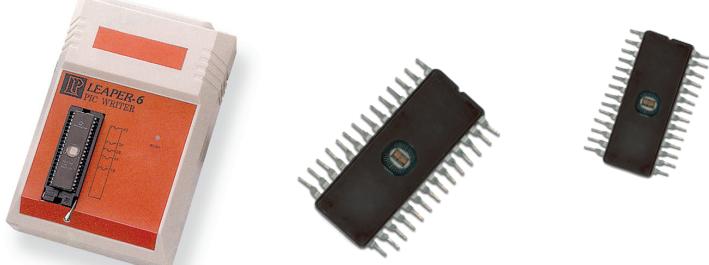
Список сокращений: ICSP - возможность последовательного программирования непосредственно в изделии (устройстве). WDT - стопожевой таймер, IIC/SPI/USART - интерфейсы последовательной передачи данных, MIIC - Master IIC.

## ПРОГРАММАТОР PIC START

Портативный программатор для PIC контроллеров.

Используется для программирования:

- PIC 16C5X – PIC 16C8X
- PIC 16C6X – PIC 17C4X
- PIC 16C7X – PIC 16C6XX



Работает под управлением MP-LAB.

Поставляется с программным обеспечением от MICROCHIP на CD-rom.