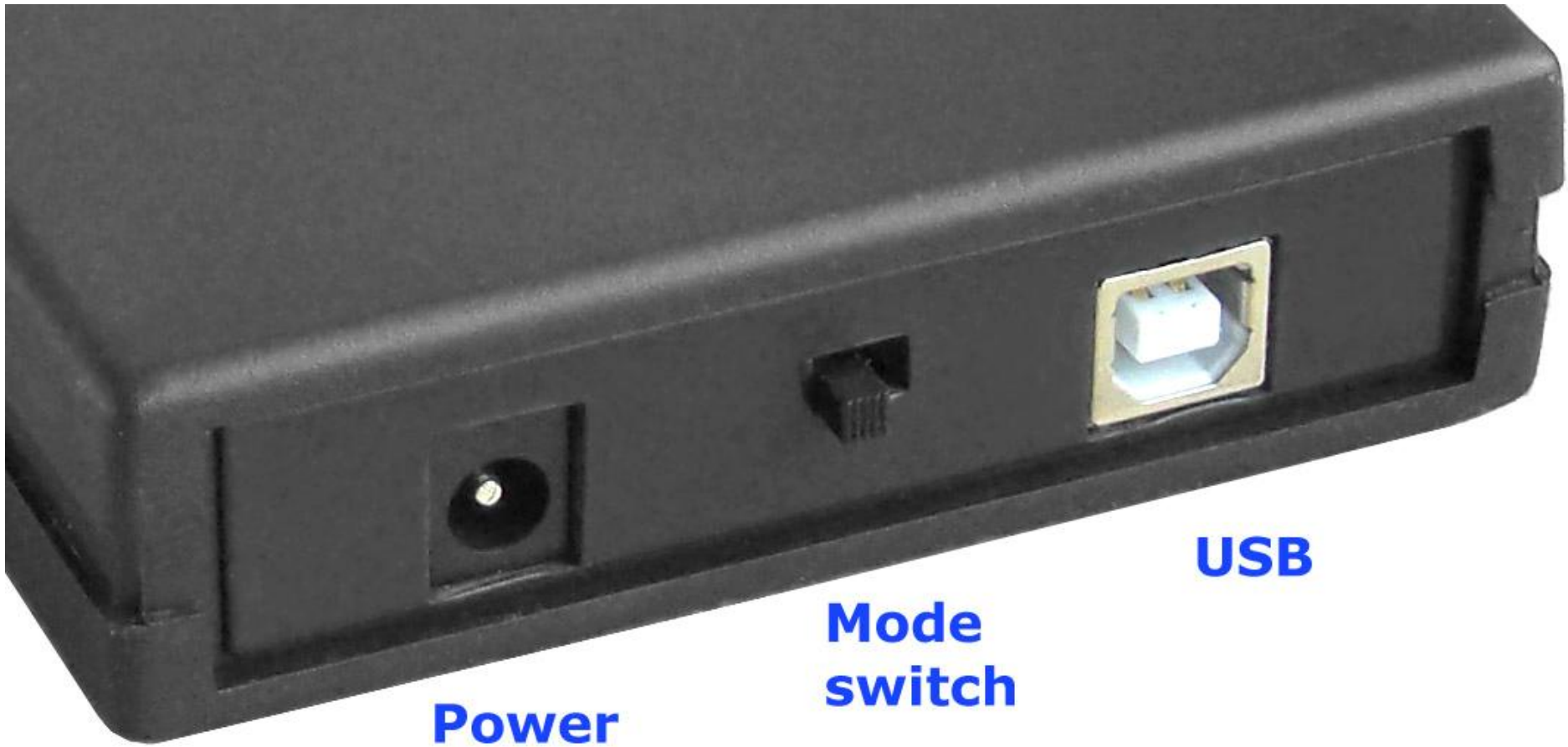
Programmer Orange5

Orange5 is a professional programming device for memory and microcontrollers

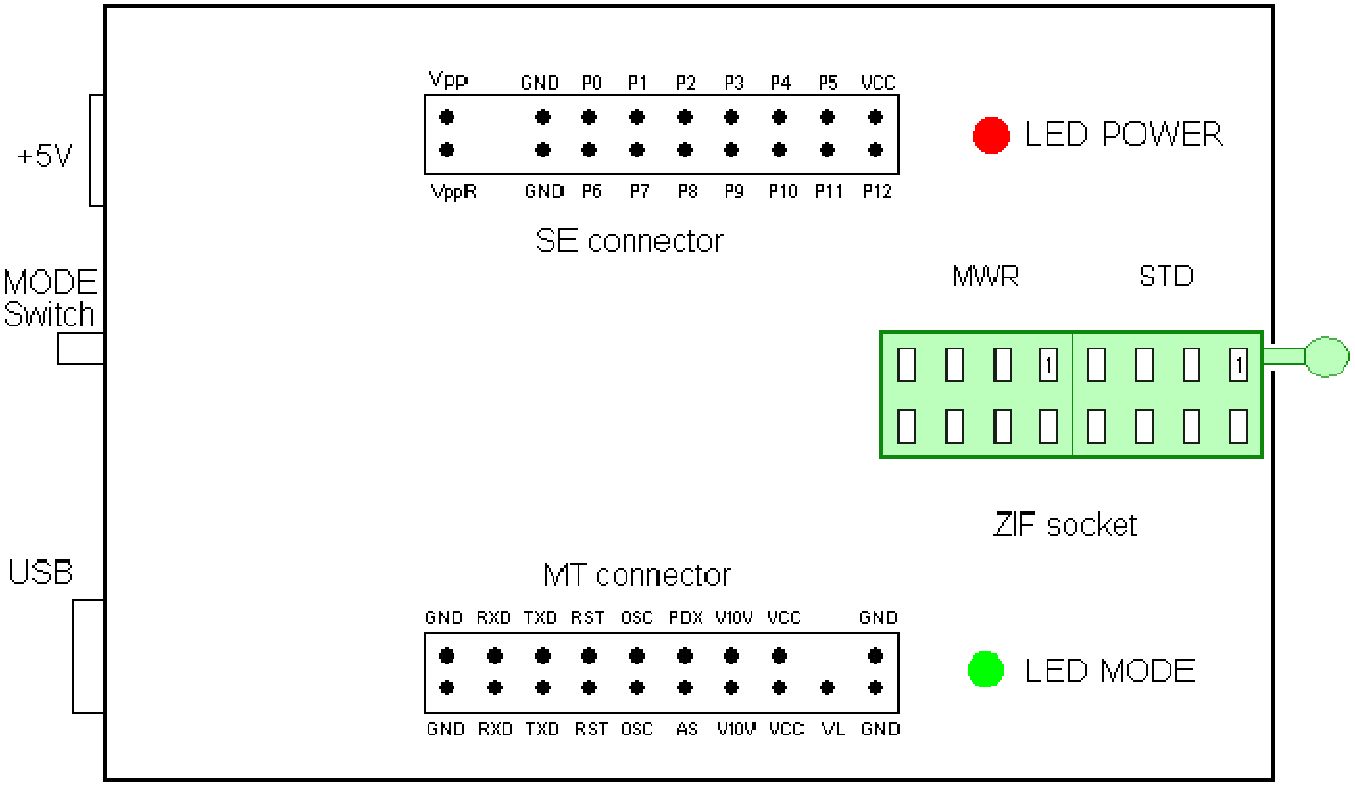
Technical Info

- Connection and power via USB interface (USB2.0)
- Universal ZIF16 panel for EEPROM
- Control of contacts in the sockets
- Two expansions connectors compatible with Orange4 and Omega MTRK
- Protection against overcurrent and overvoltage
- Two types of power supply: Standard (USB)
  and enhanced (USB + external power supply)
- Three adjustable voltage and current control:
  Voltage of power supply (2.0...5.0V),
  programming voltage (2.0...21.0V),
  additional fixed 10V for microcontrollers.
- High-speed bidirectional pin drivers with adjustable voltage (2.0...5.0V)
- Oscillator clock generator with frequency (up to 24 Mhz) and out voltage adjustment.
- Built-in 32-bit virtual machine

Connectors



Top Sockets


+5V
MODE
Switch
USB
Vpp GND P0 P1 P2 P3 P4 P5 VCC
VppR GND P6 P7 P8 P9 P10 P11 P12
SE connector
LED POWER
MWR
STD
1
1
ZIF socket
MT connector
GND RXD TXD RST OSC PDX V10V VCC GND
GND RXD TXD RST OSC AS V10V VCC VL GND
LED MODE

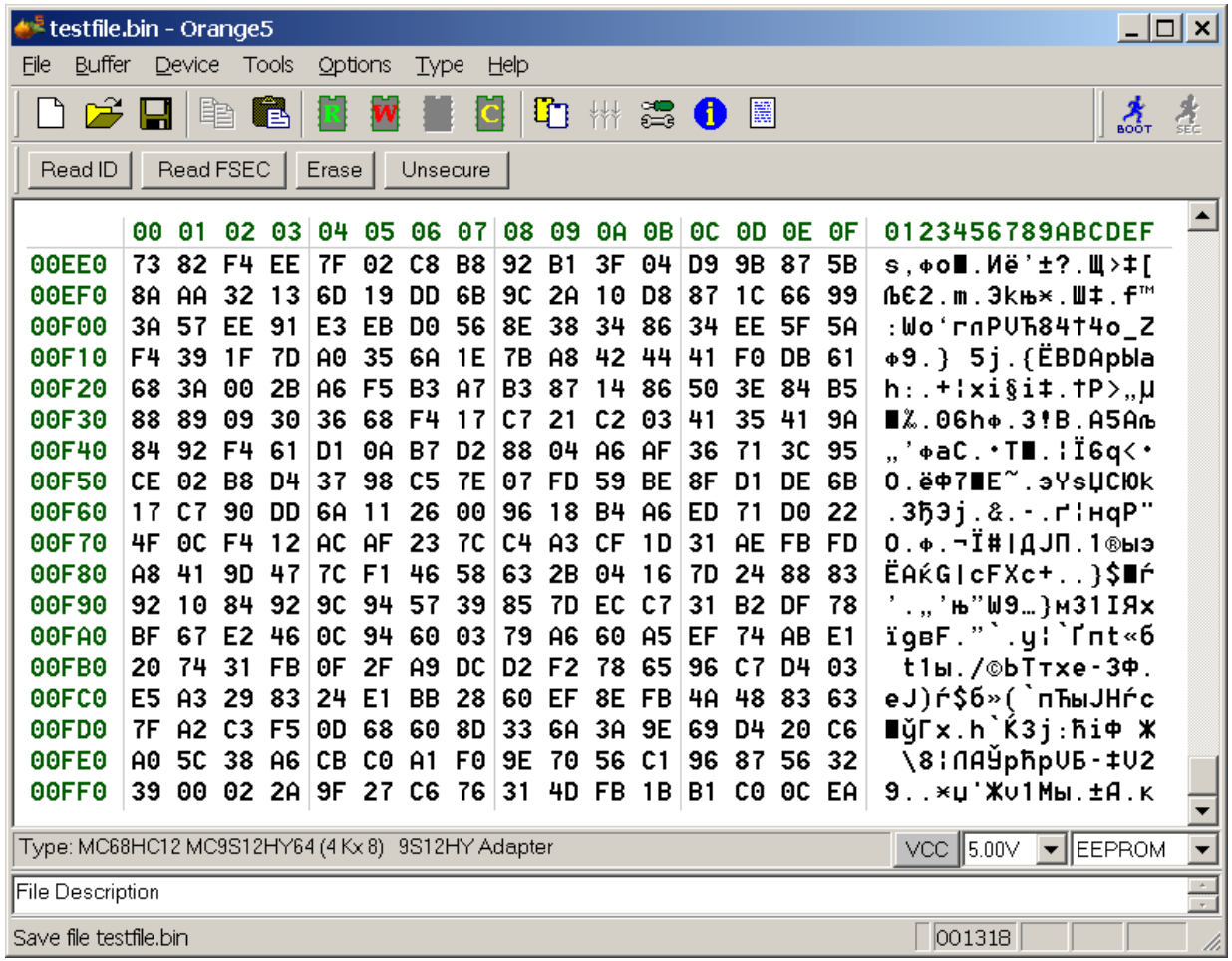
Over 1000 supported devices

EEPROM	24Cxx, 25Cxx, 64Cxx, 93Cxx, 93Sxx,
FLASH	SPI Flash 25Fxx, NAND Flash
Motorola 68HC05	05B4 05B6 05B8 05B16 05B32 05H12 05L28 05P3 05X16 05X32 705B16 705B32 705E6 05K3 705P3 705X32
Motorola 68HC08	08AB16A 908AP8A 908AP16A 908AP32A 908AP64A 08AS20 08AS32 08AS32A 08AZ32 08AZ32A 08AZ32A 08AZ48A 908AB32 908AS60 908AS60A 908AZ60 908AZ60A 908GP32 908GZ60 908JL3 908JL8 908LJ24 908LK24 908QC4 908QC8 908QC16 9S08AW16 9S08AW32 9S08AW48 9S08AW60 9S08QD2 9S08QD4 9S08QG4 9S08QE8 9S08QG8
Motorola 68HC11	11A1 11A8 11E1 11E9 11E20 11E32 11EA9 11F1 11K4 11KA2 11KA4 11KG4 11KS2 11KW1 11L6 11P2 11PA8 11PH8 711E9 711E20
Motorola 68HC12	912B32 912BC32 912BE32 12D60 912D60 912DG128 912DJ128 912DT128 9S12C32 9S12GC32 9S12A64 9S12D64 9S12A128 9S12B128 9S12DB128 9S12DG128 9S12DJ128 9S12DT128 9S12H128 9S12HZ128 9S12DJ256 9S12DG256 9S12DP256 9S12DT256 9S12H256 9S12HZ256 9S12DP512 9S12DT512 9S12XB128 9S12XD64 9S12XD128 9S12XDG128 9S12XDG256 9S12XDT256 9S12XDT384 9S12XDG512 9S12XEP100 9S12XHZ256 9S12XHZ512 9S12XS128

Atmel	AT89Cx051 AT89S5x AVR Tiny, Classic, Mega
MicroChip	PIC10, PIC12, PIC16, PIC18
Renesas / NEC	M30624FG M30833FJ M30853FH M30855FW M30873FH M30875FH M30876FJ M30878FJ M30879FK M30879FL M3087BFK M3087BFL uPD70F3344 uPD70F3345 uPD70F3346 uPD70F3347 uPD70F3348 uPD70F3354 uPD70F3355 uPD70F3356 uPD70F3357 uPD70F3358 uPD70F3364 uPD70F3365 uPD70F3366 uPD70F3367 uPD70F3368
ST	ST62xx ST92Fxxx ST10F168 ST10F269 ST10F275 ST10F276 ST10F280 STM8AF51
Texas Instruments	TMS370C002 TMS370C032 TMS370C036 TMS370C042 TMS370C056 TMS370C058 TMS370C059 TMS370C736 TMS370C756 TMS370C758 TMS370C759 TMS374C003A TMS375C006
National Semiconductors	CR16MCS9 CR16MCT9

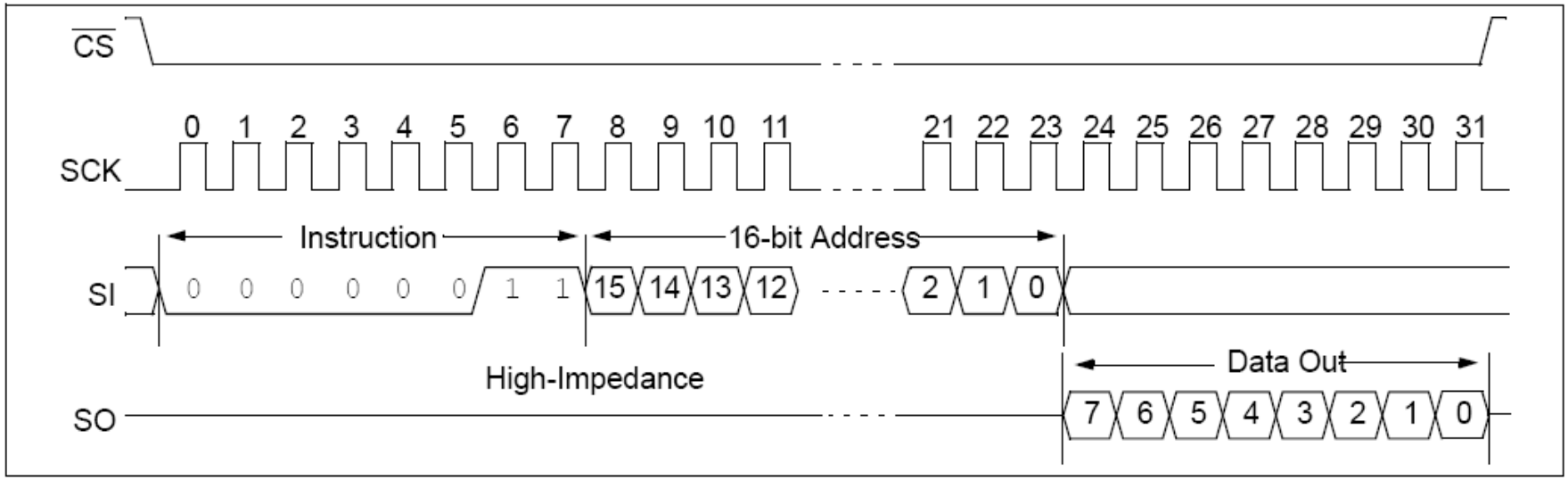
Software

- Edit 8 and 16 bits HEX values, as well as ASCII.
- Read and write files in BIN, HEX, S19 formats;
- Visual compare mode with highlight values;
- Write all chip or marked area;
- Support multiple configuration files;
- Auto-save backups;
- Extended set operations on the buffer;
- Maximum buffer size - 32Mb;
- Works under Windows XP (32 bit).

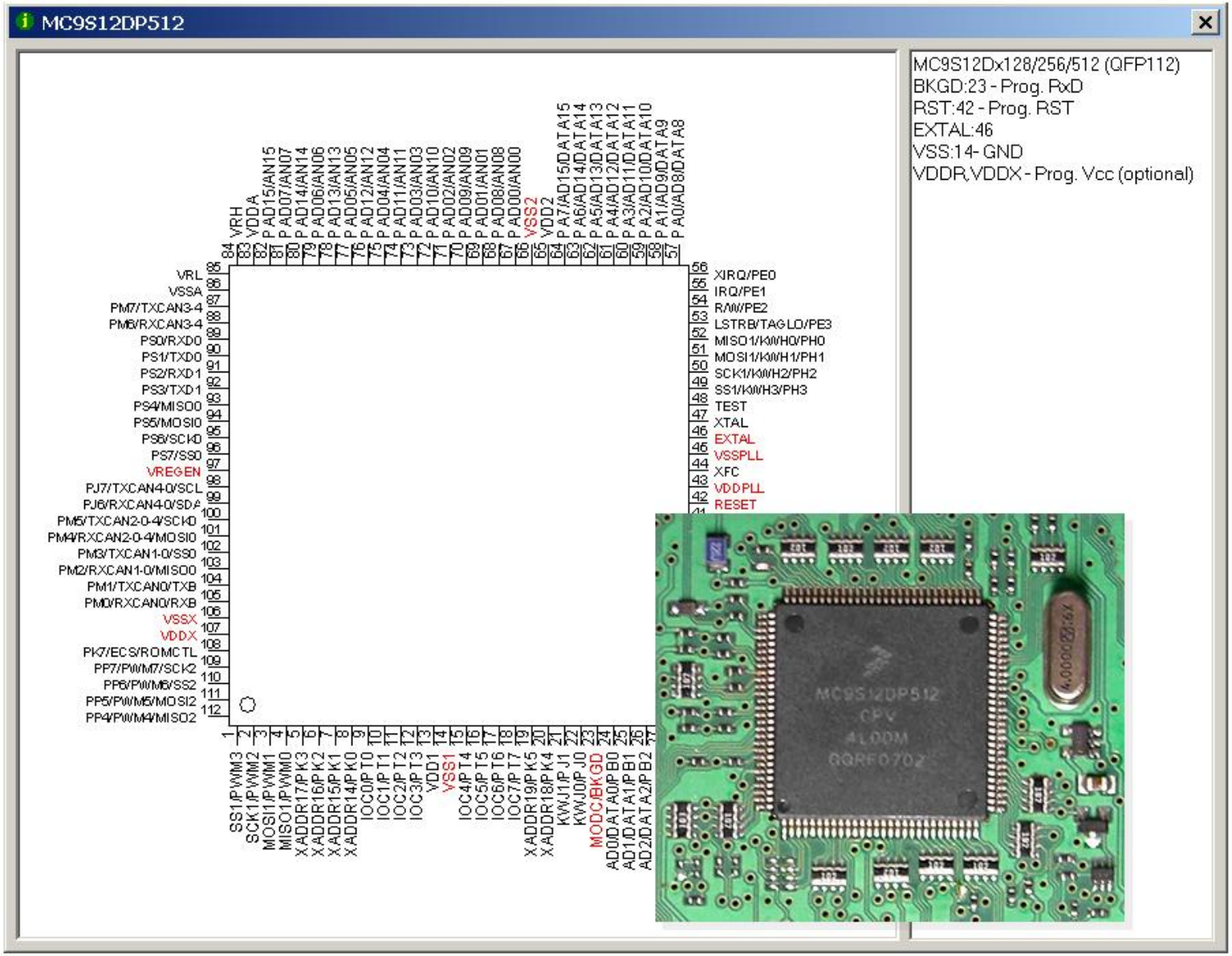


HPL macro language

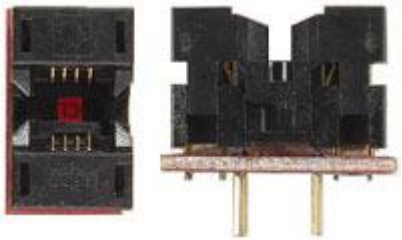
```
[READ]
CS=0

R0=00000011b                        ;Instruction
LOOP=(7,0){SI=R0[I],SCK=P}

LOOP=(15,0){SI=ADR[I],SCK=P}        ; 16 bit Address

SI=1
LOOP=(7,0){SCK=1,DATA[I]=SO,SCK=0} ; Data

CS=1
```



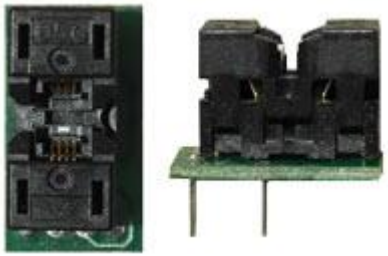
In-Circuit programming



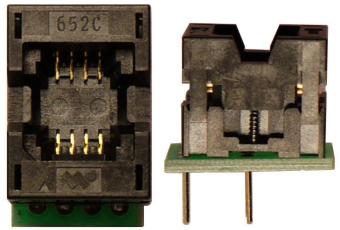
EEPROM adapters



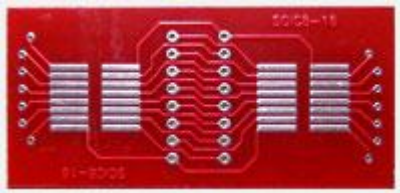
SOIC8 pitch 1.27mm ZIF



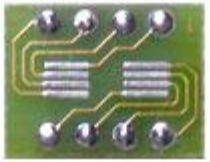
SSOP8 pitch 0.65 mm ZIF



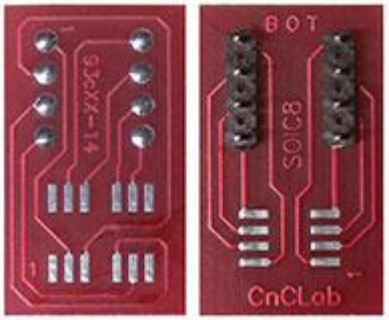
SOIC8 wide pitch 1.27mm ZIF



SOIC8-16 solder pitch 1.27mm

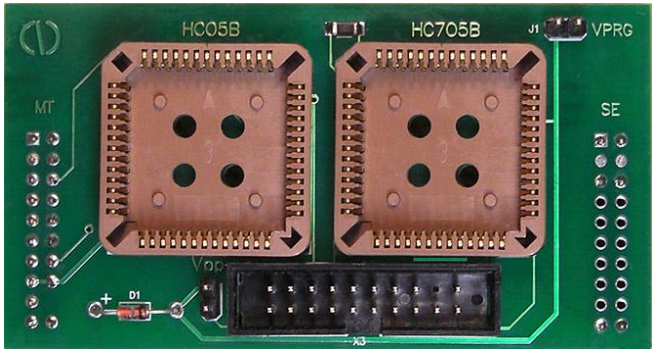


SSOP8 pitch 0.65 mm (solder)

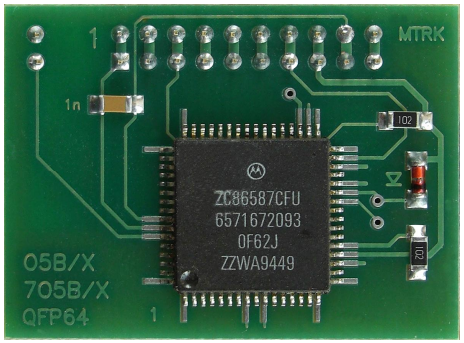


SOIC8 and 93cXX SOIC14

Motorola 68HC05 adapters

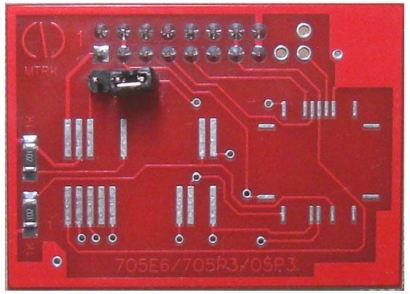


68HC05B6/HC05B8/HC05B16 and 68HC705B16/HC705B32 (PLCC52)



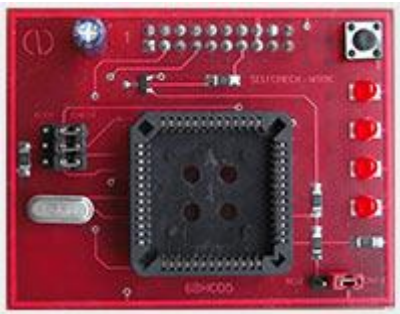
68HC05B16/B32, 68HC05X16/X32 QFP64 (solder)

MC68HC05L28 (SDIP56) and MC68HC05B6/B8 (DIP48, SDIP56)



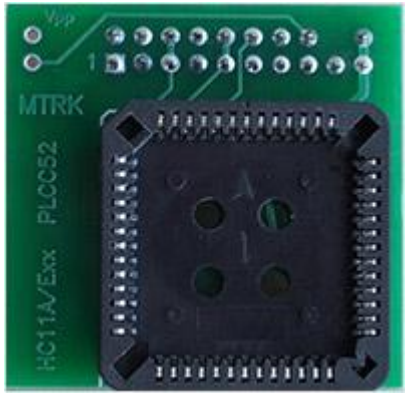
68HC705E6/HC05P3/HC705P3 SOIC28

68HC05H12 (PLCC52)

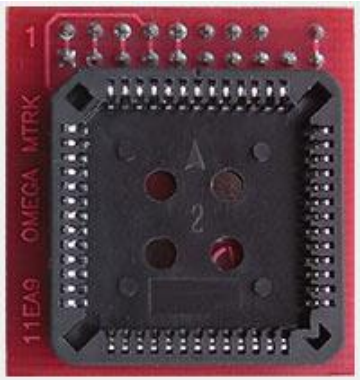


Selfcheck for test and erase EEPROM 68HC05B6/B8/B16 (PLCC52)

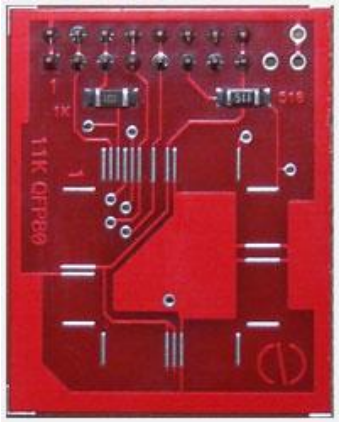
Motorola 68HC11 adapters



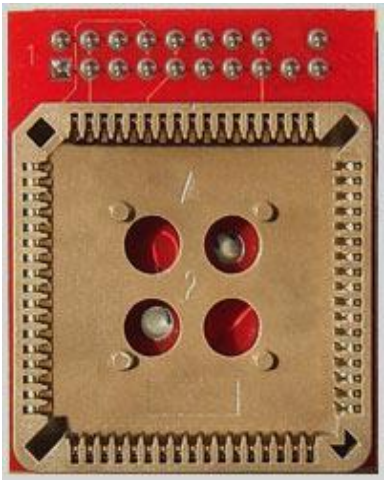
68HC(7)11A1,A8,E9,E20 (PLCC52)



68HC11EA9 (PLCC52)

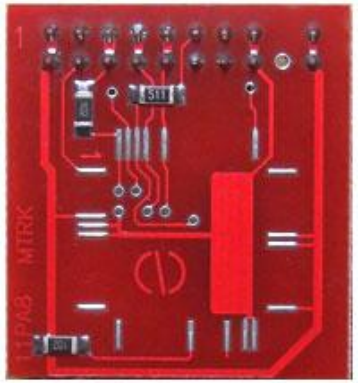


68HC11K/KA QFP (solder)



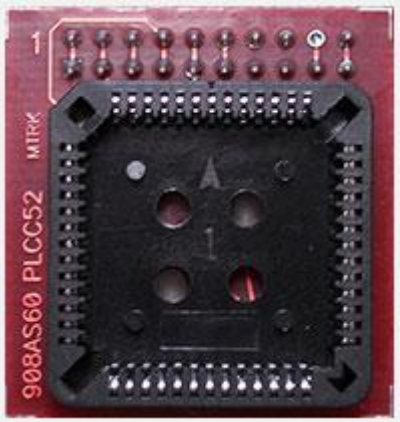
68HC11F1 PLCC68

68HC11L6 PLCC68

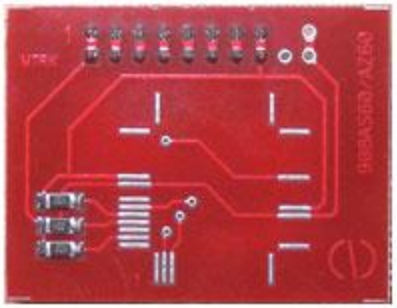


68HC11PA8 and 68HC11E9/E20
QFP64 (solder)

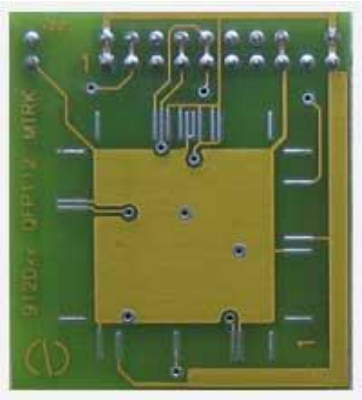
Motorola 68HC08, HC12 adapters



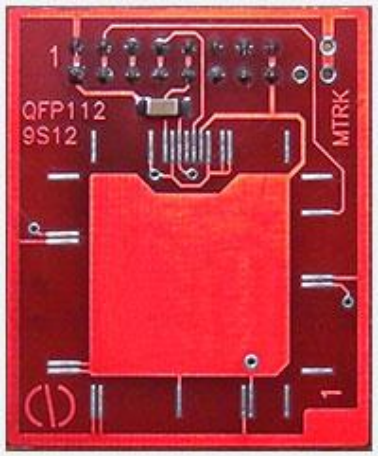
68HC908AS60 PLCC52



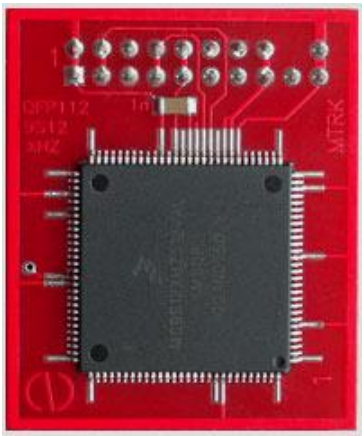
68HC908AZ32/AZ60/AS60 QFP64 (solder)



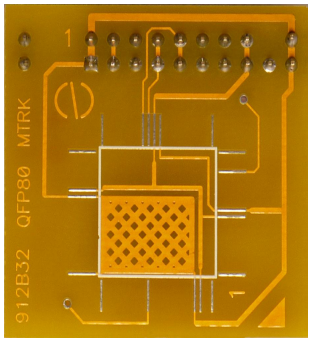
912Dxxx QFP80,QFP112 (solder)



9S12Dxxx QFP80,QFP112 (solder)

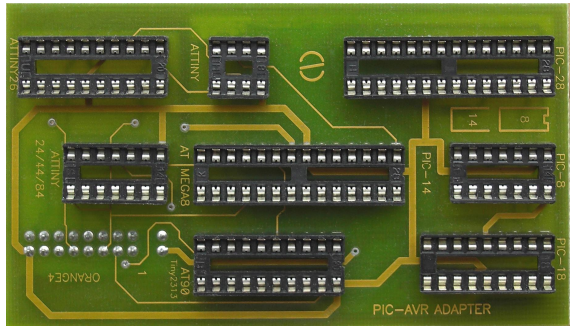


9S12H/HZ/XHZ QFP80,QFP112 (solder)



912B32 QFP80 (solder)

Adapters



PIC-AVR

CAN, K-Line

TMS370