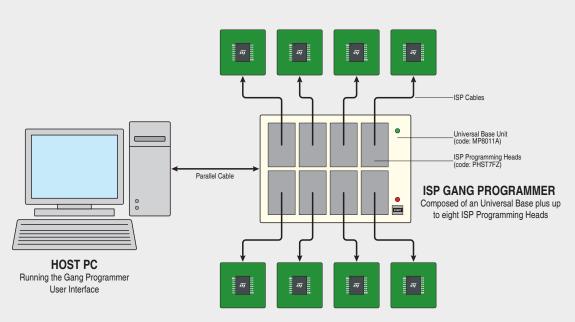
# MP-ISP/ST7

## **In-Circuit Gang Programming System for ST7 FLASH Family**





### **TARGET BOARDS**

Up to eight target boards can be in-circuit programmed simultaneously. Each target board is connected to an ISP Programming Head via an ISP flat cable.

### **Overview**

The MP-ISP/ST7 In-Circuit Gang Programmer, in combination with a standard personal computer, is a full-featured, high-performance multiple (gang) programming system specific for ST7 FLASH microcontrollers. MP-ISP/ST7 is able to in-circuit program up to eight devices.

MP-ISP/ST7 is composed of a single, universal and upgradable base unit, ready to support current and future devices (code: MP8011A) and by eight "programming heads" (code: PH-ST7FZ). Each programming head features a header connector with all the necessary ISP signals required to in-circuit program the target system (the same MP8011A base unit can be used in conjunction with a wide range of other optionally purchasable programming heads for traditional socket programming).

MP-ISP/ST7 is a PC-hosted system: it communicates with the host PC through the LPT parallel port. Blank checking, reading, erasing, programming and verifying operations are supported. MP-ISP/ST7 is ready to support future devices. The upgrade operation for the support of new devices is as simple as downloading new releases of the PC

The MP-ISP/ST7 comes with the main gang programmer unit (MP8011A), eight ISP programming heads (PH-ST7FZ), eight ISP flat cables to connect to the target systems to be programmed, external power supply adapter, parallel cable and user's guide.

### The User Interface

The MP-ISP/ST7 user interface has two separate windows for editing the code and data memory (if present) of the device to be programmed. An

Info panel always displays information about the device to be programmed. Additionally, the status of the programming sites is shown together with the statistics about the programmed device. The editing of the Option Byte(s) is simplified through a special dialog box-the Option Bytes dialog box is specific for each device and allows you to edit each single bit of the option bytes of the device you are working with. MP-ISP/ST7 can perform blank checking, erasing, reading, programming and verifying operations. A special operation, the Auto operation, groups the blank checking, erasing, programming and verifying operations in a single operation, speeding up the programming process. All of the operations share a common, simple, easy-to-use dialog box.

### **Protected Mode**

Protected Mode simplifies the programming process by means of an easy, guided procedure that requires no special knowledge. Protected Mode is suitable when programming large amounts of devices. Entering and exiting the Protected Mode is password protected.

### **Software Upgrades**

SofTec Microsystems is continuously adding the support for new devices to the MP-ISP/ST7 Gang Programming System. The latest version of the user interface is always available free of charge at our download page.

ST72F260	ST72F651
ST72F262	ST72F652
ST72F264	ST7FDALI
ST72F321	ST7FLITE0
ST72F324	ST7FLITE1
ST72F324L	ST7FLITE2
ST72F521	ST7FLITEB(
ST72F561	ST7FLITES
ST72F621	ST7FMC1
ST72F622	ST7FMC2
ST72F623	
CTZOCCOD	

The support for new devices is added constantly. For the latest list of supported devices, please visit our web site.

Programming Functions Load File, Edit Buffers (Code and Data Memory), Edit Option Bytes, Read Master, Blank Check, Erase, Program, Protect, Verify,

### **Programming Times**

Programming Times
Programming times depend on the
microcontroller's FLASH memory technology,
memory size and oscillator frequency. For eight
HDFlash devices (ST72F324, 521, 561, 621,
651, etc.) with 32 KB and an oscillator
frequency of 16 MHz, total programming time is
about 13 seconds (including program Code,
partic 2nd a program Option, verify Code,
partic 2nd a program Option, verify Code,
partic 2nd a program Option, verify Code, about 13 seconds (including program Gode, verify Code, program Options, verify Options). For eight XFlash devices (ST72F264, LITE0, LITE2, etc.) with 8 KB and an oscillator frequency of 16 MHz, total programming time is about 4 seconds (including program Code, verify Code, program Options, verify Options).

### System Requirements

- A PC running Win 9x, 2000, Me, NT or XP;
  64 MB of RAM plus 20 MB of HD space;

## **Ordering Information**Order code: MP-ISP/ST7. The following items

are included:

- The programmer's base unit (MP8011A);
  Eight ISP programming heads (PHST7FZ);
  Eight ISP flat cables;

- . The user interface software:

Customers who already own the MP8011A unit need only purchase the ISP programming heads (code PHST7FZ) in order to get a full ISP



### ISP CONNECTOR



Each ISP programming head features a header connector with all the necessary ISP signals required to in-circuit program the target svstems are provided.

