

DediProg®

Cross reference between SF 100 and EM 100



Agenda

➤ Product introduction

- Introduction of SF100
- Introduction of EM100

➤ Summary table

- Purpose
- Application Procedure
- Difference

SF100: In Circuit Programming Solution (ICP)

Features:

Update the Serial Flash soldered on the application board (SMT package) by using our dedicated programmer. When connected to the board, the programmer control the chipset or isolations and update or read the Serial Flash content.

Advantages:

- Very fast update (10sec / 30 sec)
- Flexible update as it only requires the naked board (convenient for development, production, storage area update or repairing channel)

Requirement:

- Some Chipsets need isolations for their SPI outputs protections.

SF100



SF100 features

Features:

- Update 2 Serial Flashes soldered on board
- Application Chipset reset
- Supply memory on board (application OFF)
- High Voltage to speed up Flash operation (V_{pp})

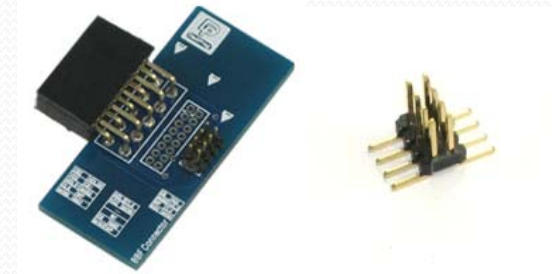
Update conditions:

- SPI tolerant when chipset OFF
- SPI High Impedance when chipset reset
- Application offers SPI High Impedance (Mosfet, Resistor..)

SO Test Clip
(Connected on package)



1.27mm Header adapter



Densities	8Mb	16Mb	32Mb	64Mb	128Mb
USB	8s	14s	37s	70s	108s

Serial Flash Emulator 1/2

Features:

The EM100 is a Serial Flash emulator based on RAM.

- Can Support all the market Serial flash (brand, densities..)
- Code can be updated in few seconds instead of few minutes for a real Serial flash
- Memory content can be displayed and edited

Host PC

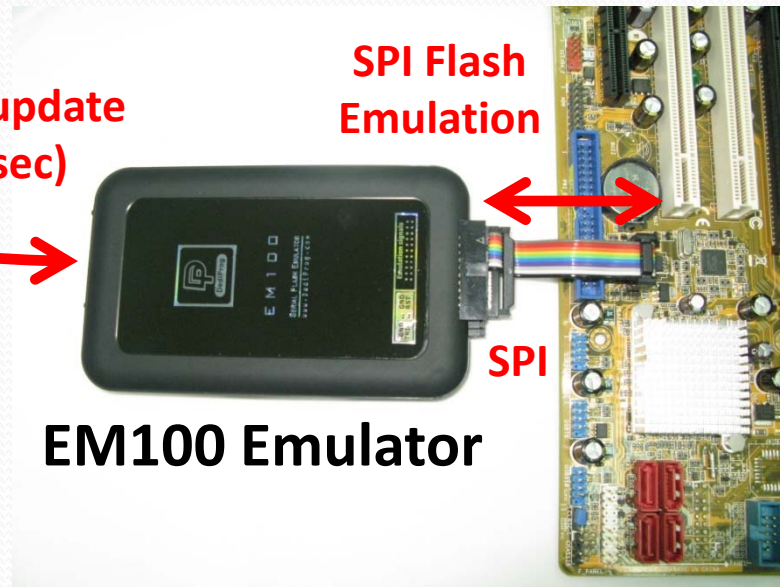


**Very fast code update
(less than 5 sec)**

USB



Target System

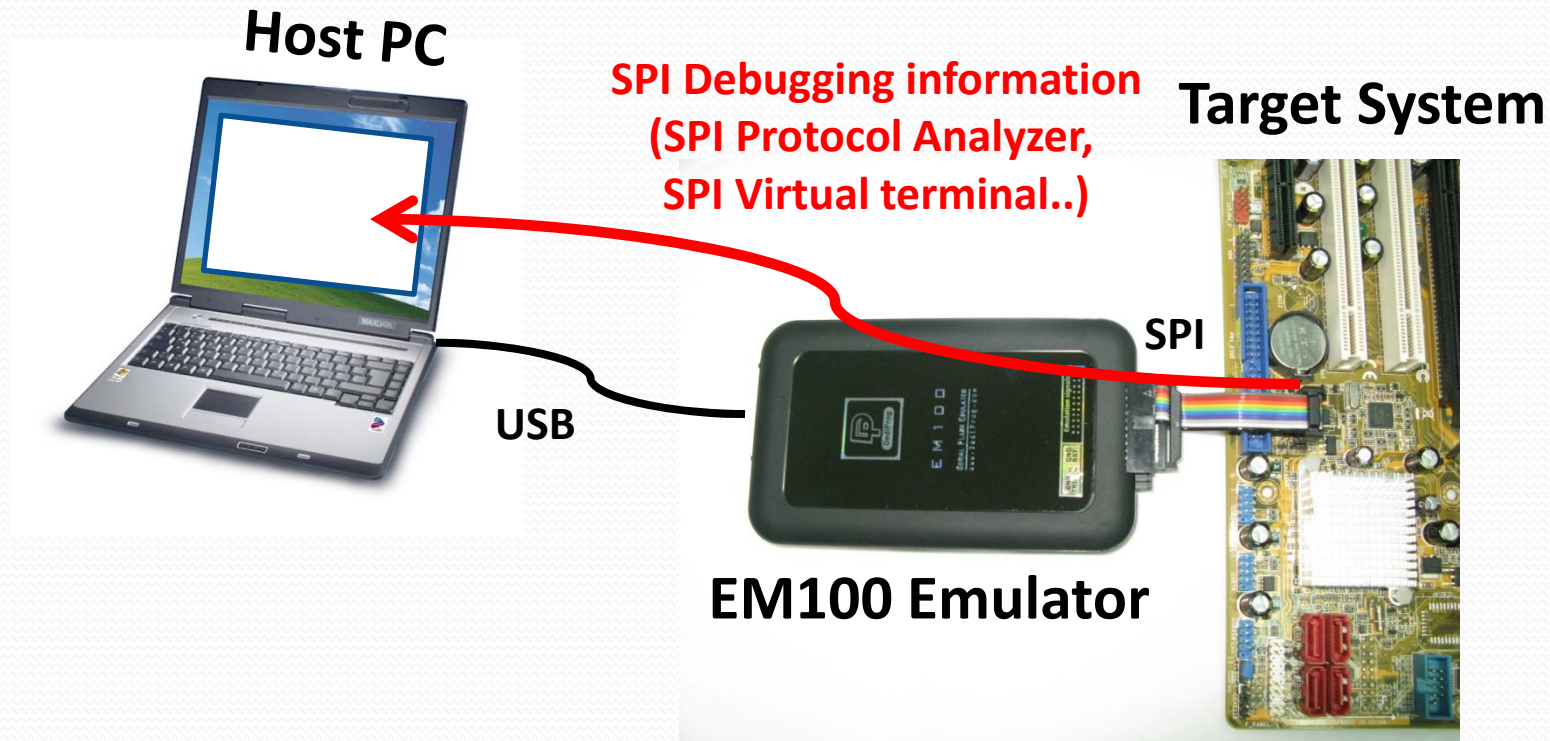


Serial Flash Emulator 2/2

Powerful software debugging features

EM100 improves debugger performance:

- With the SPI logic Analyzer allowing to monitor the SPI bus communication
- With the SPI hyper terminal allowing to exchange information between the Host PC and the target application (control the platform with debugging software, display on the host PC any debug message coming from the controller through SPI bus)
- With the Trig features under SPI events to detect any specific SPI sequences.



Summary Table

	SF100	EM100
Purpose	To program SPI flash either on board or on socket if used with BBF	To emulate the behavior of any SPI flash (densities, suppliers..).
Target System	Target system will boot on the Real SPI flash	Target system will boot on the EM100 Emulator
Application Procedure	<ul style="list-style-type: none">• Connect the ICP cable to the application SPI Bus or to the BBF• Erase and program the SPI Flash	<ul style="list-style-type: none">• Select the flash you want to emulate and download the code in EM100 RAM for emulation (Very fast)
Difference	<ul style="list-style-type: none">•A Programmer• Program the flash and boot the application PC. Operations time depends of the flash technology, density.. Often minutes	<ul style="list-style-type: none">•An Emulator• Very fast code update time because of the EM100 RAM base memory (not flash). Seconds instead of minutes. 3 seconds for any code densities.
Conditions	<ul style="list-style-type: none">• Application SPI Bus must be High Impedance during on board flash update.• If not, BBF has to be used	<ul style="list-style-type: none">• On board SPI Flash has to be disabled by EM100 driving its Hold signal low• or On board SPI Flash has to be removed