



# SPI Flash programmer FP-30



Program Hardware boards  
or  
Individual flash memory chips!

**Easy to use, Super fast SPI flash programmer  
ideal for both manufacturing and development sites!**

### Programming styles

- On-board programming (program hardware boards)



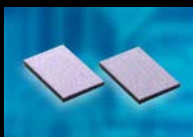
Program SPI flash memory on hardware boards via an adapter cable.

- Off-board programming (program flash memory chips)



Mount and program individual flash memory chips via a socket adapter.

### Versatile SPI flash memory support!



Supports SPI NOR and NAND flash memory. Includes NAND specific Bad Block Management functionality.

### Partial writing



Program entire flash area or modify only specified areas!

### Super convenient!



View operation progress, elapsed time and remaining time on the EL display! Result indicated by LED and beeper!



Load multiple programming data and choose which data to program on the target flash memory (4 programming data, max 2Gbit).

※ : Only supported for NOR flash.



Supply power to the hardware board directly! Eliminate external power supply to the hardware board, program flash memory without connecting a separate power supply.

### Ultra-high speed!

Program flash memory at ultra-high speeds and save time.

- 128Mbit in 40 seconds approx (※1)

Device : Cypress Model no.: S25FL128SAGMFI011  
Programming process : Erase ⇒ Program ⇒ Verify ⇒ SUMcheck

※1 : Varies on the device and environment. All areas are written

Even faster speed using High voltage programming!

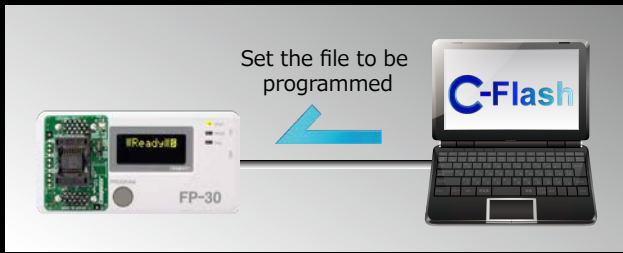
### Protection and security



Set and release SPI flash memory protection!

## Easy to use 2 operation modes : PC mode and Stand-alone mode

- 01 Connect FP-30 to the PC and start the provided software (C-Flash)
- 02 Select the target flash memory and specify the file to be programmed on FP-30



### Stand-alone mode

Disconnect FP-30 from the PC, press the PROGRAM button to program flash memory! Ideal for use at mass production/manufacturing sites.



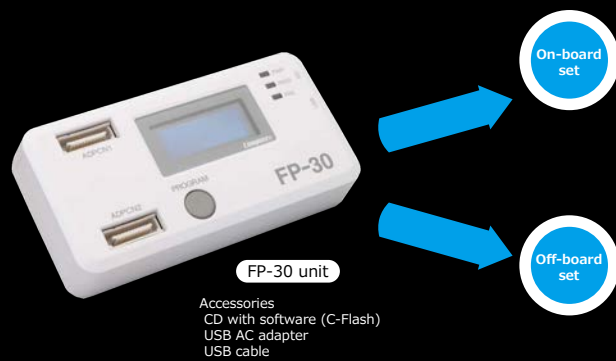
### Use when connected to PC! PC mode

Program flash memory with FP-30 still connected to the PC. Conveniently load and program flash memory when the programming data changes frequently! Ideal for development sites.



## Product Lineup : On-board set / Off-board set

On-board set and Off-board set for your needs, each with its own adapter.



Program flash memory on hardware boards with this set (Consists of FP-30 and an adapter cable)

Model name	Specification
FP-30 SPI-SA	MIL20 cable

Provided adapter cable



Connect to the hardware board via a 10-pin connector

\*The adapter cable can be purchased separately as well

Program individual flash memory chips with this set (Consists of FP-30 and a socket adapter)

Model name	Specification
FP-30 SPI-SB	SOP16pin 300mil type
FP-30 SPI-SC	SOP8pin 150mil type
FP-30 SPI-SD	SOP8pin 200mil type
FP-30 SPI-SE	SON8pin 8mm x 6mm type
FP-30 SPI-SF	SON8pin 6mm x 5mm type



\*Socket adapters can be purchased individually as well

### ■ Main specifications

Supported devices *1 (as on 2018/8)	Serial NOR Flash	Macronix / Cypress(Spansion) / Micron / Winbond / MICROCHIP / ISSI / ESMT
	Serial NAND FLASH	Macronix / Winbond
Target package		Variety of packages like 8SOP(150mil/200mil/208mil), 16SOP(300mil), SON etc.
Hardware board I/F	Connector	10-pin single pitch 2.54mm connector
	I/F cable	20-pin flat cable (approximately 20cm)
	I/F voltage	1.8V/2.5V/3.3V
Power supply to the hardware board		Supply power from FP-30 to the hardware board Voltage: Select from 1.8V/2.1V/2.2V/2.5V/2.6V/2.9V/3.0V/3.3V Max current: 200mA
High voltage programming voltage		7.5V/9.0V
Communication clock		Max 50MHz
Supported I/O		Single/Quad mode
Supported flash device capacity		Up to 2Gbit(256MByte)
Power supply, current consumption		DC 5V, 250mA approx (USB Vbus compatible) Received from the provided AC adapter or PC (connected via USB)
Product contents		FP-30 unit, AC adapter, USB cable, Software CD with C-Flash, flash memory adapter depending on the purchased set

\*1: For latest information on compatible flash memory devices, check the compatible device list on our website [https://www.computex.co.jp/products/fp\\_30/index.htm](https://www.computex.co.jp/products/fp_30/index.htm) or contact our sales department.

### ■ Software (C-Flash for SPI) specifications

Basic functionality	Erase/write/read/erase check/SUM check/verify check operations supported
Programming method *2	Partial programming or complete area programming supported
Protect/security	Device-specific setting/cancellation of protection/security is possible via macros
File format	Binary, Motorola S, Intel Hex
Bad block management (NAND flash memory)	Bad block area is searched before programming. If a bad block is found, the next block or another block that has been specified is programmed.
TCP / IP communication	Issue commands to C-Flash from external programs via TCP/IP
Controlling multiple FP-30 units	Control up to 10 FP-30 units via a single PC
Operating environment	PC with USB 2.0 running Windows 7 32bit/64bit, Windows 8 32bit/64bit, Windows 10 32bit/64bit
User support	One year free support from the date of purchase. C-Flash can be downloaded and updated for free and additional devices can be added within the support period.

\*2: When performing partial programming, it is required to specify a continuous area and a unit (such as a sector) to be erased with 0xD8/0xDC or 0xC4 commands.

### ■ Additional software

Command prompt software	A command prompt software(exe) to issue programming commands to the FP-30 without using C-Flash is provided.
-------------------------	--