Stand-alone flash programmer best suitable for mass production and field programming

The Flash Memory Programmer PG-FP6 is a tool that can be used in a user system to write a program to flash memory in a Renesas microcomputer, verify the written program, and erase the written program. This is a standalone tool allowing high-speed writing.

The PG-FP6 tool also includes FP6 Terminal, a programming GUI that allows you to control this tool from a PC.

Main features
- High-speed programming of MCUs by the PG-FP6 for reduced production times
- Control panel suitable for stand-alone operation
- Simple and user-friendly GUI, FP6 Terminal
- Support for high-volume programming by gang programming with the use of multiple PG-FP6s
- Security Enhancement against theft of program files and the PG-FP6 main unit
- Security slot for theft prevention
- Useful functions for production line: programming using by buttons and automatic programming

Able to use USB power: convenient for programming in the field

Control panel suitable for stand-alone operation

User-friendly GUI (FP6 Terminal)

Support for high-volume programming by gang programming with the use of multiple PG-FP6s

Reduced times for high-volume programming
You can handle simultaneous programming by controlling up to 12 PG-FP6s from a single PC.

Easy setup
You can download setting files and program files as sets to multiple PG-FP6s at the same time.

*1 The VCC LED is lit when the target power supply is turned on.
Security Enhancement against theft of program files and the PG-FP6 main unit

Security for the program files and theft of the PG-FP6 unit itself is strengthened with the following functions: encrypting of program files, saving of encrypted data to the PG-FP6 unit, and writing of a program while simultaneously decrypting it.

*The program file encryption function can be run by using the encryption utility program (RPE.exe) from the command line. The file is among those installed by the FP6 Terminal installer.

Rich programming methods usable according to the purpose

You can choose the programming method according to the purpose. For example, you can start programming manually with a button press or automatically. The PG-FP6 can be powered via USB port for field programming.

Stand-alone (off-line) programming

Production line programming

PC programming

Field programming

Specifications

<table>
<thead>
<tr>
<th>Product package contents</th>
<th>PG-FP6, GND cable, USB cable, Target cable, Power supply adapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>External dimensions</td>
<td>140 × 90 × 30 mm (protruding parts excluded)</td>
</tr>
<tr>
<td>Weight</td>
<td>Approximately 245 g</td>
</tr>
<tr>
<td>Host PC interface</td>
<td>Target host PC: Refer to section 1.5, Operating Environments</td>
</tr>
<tr>
<td></td>
<td>Serial port: 9-pin D-sub male port for RS-232C</td>
</tr>
<tr>
<td>Target interface</td>
<td>15-pin D-sub female target connector</td>
</tr>
<tr>
<td></td>
<td>Power supply: 1.8 V to 5.5 V, 500 mA max.</td>
</tr>
<tr>
<td>Remote interface</td>
<td>15-pin D-Sub female remote connector</td>
</tr>
<tr>
<td></td>
<td>Interface level: 3.3 V</td>
</tr>
<tr>
<td>Power adapter</td>
<td>Power adapter for each region*</td>
</tr>
<tr>
<td>USB cable</td>
<td>Approximately 2 m</td>
</tr>
<tr>
<td>Target cable</td>
<td>14-pin type : Cable length: Approximately 42 cm</td>
</tr>
<tr>
<td>GND cable</td>
<td>Approximately 1 m</td>
</tr>
<tr>
<td>Selectable programming environment</td>
<td>Up to eight target environments are selectable for the</td>
</tr>
<tr>
<td></td>
<td>programming area (384 MB max)</td>
</tr>
</tbody>
</table>

Security functions of the PG-FP6 main unit

- Pattern authentication when the main unit is started
- Password authentication when the settings of the security function are changed
- A limit on the number of times authentication can be attempted
- Reading of RPE files
- Restricting the operation of the PG-FP6 main unit (in terms of the number of times the target device can be programmed and restriction of the execution of commands)
- Encrypting the data stored in the PG-FP6 main unit

Target devices

RA, RE, RL78, RX, RH850, Renesas Synergy™, Some special-purpose ICs, SuperH, RBC, 78K or V850 (singular power supply flash memory)

Operating environment

- Windows® 11
- Windows® 10 (32- and 64-bit versions)
- Windows® 8.1 (32- and 64-bit versions)
- Windows® 7 (32- and 64-bit versions)

*The power adapter that comes with the PG-FP6 varies with the region where it is to be used.

FAQ

en-support.renesas.com/knowledgeBase

Community

community.renesas.com

Video

Tutorial videos for microcontrollers are available:

For RA Family
www.renesas.com/ra-how-to-video

For RL78 Family
www.renesas.com/rl78-how-to-video

For RX Family
www.renesas.com/rx-how-to-video