K110 is an engineering IC programmer that supports the majority Flash ICs on the market. Powered by USB port and does not need external power, also provides Command Line for software redevelopment. Palm size and space saving. It provides online or offline Flash IC programming through different adaptor.

K110 offers user the best solution for development and low volume production.

**Features**

**High speed programming**
- Built in high speed processor to achieve high programming speed.

<table>
<thead>
<tr>
<th>IC Type</th>
<th>IC P/N</th>
<th>Data Size</th>
<th>Engineering mode (sec)</th>
<th>Standalone mode (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPI NDR</td>
<td>W25Q64FV</td>
<td>8MB</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>GD25Q128B</td>
<td>16MB</td>
<td>46</td>
<td>52</td>
</tr>
<tr>
<td>SPI NAND</td>
<td>GD5F2GQ4UB</td>
<td>128KB</td>
<td>100</td>
<td>113</td>
</tr>
</tbody>
</table>

**Support serial bus interface IC and package type.**
- SPI NDR Flash, SPI NAND Flash, and EEPROM.
- SOP, WSON, USON, and BGA.

**Support Serial Interface Protocol**
- SPI, PC, and uWire.

**Support a variety of file formats**
- Binary, Intel Hex, Motorola, and ROM, etc.

**Support Command Line**
- Provide Command line for software redevelopment.

**Support Standalone mode**
- IC programming without PC.

**ATE Port**
- With ISP adaptor, provide Busy/Pass/Error and Start pins for remote control.

**Support 1.2V low voltage IC**
- Multiple programmers support to program IC in parallel.

**Window GUI**

![Image of Window GUI](image.png)

**Multiple K110**

![Image of Multiple K110](image.png)
# Specification

## Hardware

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>ARM and FPGA architecture</td>
</tr>
<tr>
<td>Internal Buffer</td>
<td>256MB</td>
</tr>
<tr>
<td>Protection Feature</td>
<td>Overcurrent and ESD protections</td>
</tr>
<tr>
<td>Vcc Range</td>
<td>1.2-3.6V</td>
</tr>
<tr>
<td>Vcc Current Limit</td>
<td>~200mA</td>
</tr>
<tr>
<td>Programming Interface</td>
<td>ISP Adaptor or IC Socket Adaptor</td>
</tr>
<tr>
<td>Support IC Category</td>
<td>SPI NOR Flash, SPI NAND Flash, and EEPROM</td>
</tr>
<tr>
<td>Programming Protocol</td>
<td>SPI, IC, and uWire</td>
</tr>
<tr>
<td>Operation Interface</td>
<td>Busy/Pass/Error LED, Start key</td>
</tr>
<tr>
<td>PC Connection Interface</td>
<td>The programmer provides a USB 2.0 interface. The ATE interface is provided by the ISP adaptor.</td>
</tr>
</tbody>
</table>

## Software

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Software</td>
<td>Dedeware</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows XP/Vista/7/8/8.1/10</td>
</tr>
<tr>
<td>Support File Format</td>
<td>Binary, Intel Hex, Motorola, and ROM, etc.</td>
</tr>
<tr>
<td>Programming Mode</td>
<td>Engineering Mode and Production Mode</td>
</tr>
</tbody>
</table>
| Engineering Mode                             | 1. IC selection and image file loading  
2. IC Erase, Blank check, Program, and Verify  
3. IC configuration and batch setting  
4. Serial number or unique key programming setting  
5. Project file operation                      |
| Production Mode                              | 1. Count all PASS/ERROR amount  
2. Output project execution report automatically |

## Special Features

1. IC programming with multiple K110 programmers.  
2. Serial number programming (PIC is required)  
3. Unique key file programming (PIC is required)  
4. Log data output to file automatically (PIC is required)

## Power

- USB 5V or DC 5V

## Dimension (W x D x H)

- 108 x 67 x 20mm

## Weight

- 70g

## Standard Package

- 1. K110 IC Programmer x 1  
- 2. USB Cable x 1  
- 3. AC 100-240V to DC 5V/1A Power Adaptor x 1  
- 4. SPI/IIC ISP Adaptor with ISP Cable x 1  
- 5. CD-ROM (Include Dedeware and User Manual) x 1

## Recommended Accessories

- 1. SPI/IIC DIP ISP Adaptor  
- 2. uWire ISP Adaptor  
- 3. EE100 10-Pin ISP Split Cable [2.00mm]  
- 4. EE100 10-Pin ISP Split Cable [2.54mm]  
- 5. EE100 ISP Cable  
- 6. EE100 ISP Testclip [S08]