

### Target Applications

- PC peripherals, keyboards
- Kiosks, point-of-sale terminals
- Physical entry devices
- Time and attendance terminals

### Features

- Small form factor
- Blue LED (in idle mode)
- Excellent image quality
- Encrypted fingerprint data
- Latent print rejection
- Counterfeit finger rejection
- Rugged
- Works well with dry, moist, or rough fingerprints
- Compatible with Windows<sup>®</sup> 7 (32/64 bit), Vista (32/64 bit), XP Pro (32/64 bit), XP Home, 2000 and Windows Server 2000, 2003, 2008

### Key Specifications

- Pixel resolution: 512 dpi (average x, y over the scan area)
- Scan capture area: 14.6 mm (nom. width at center) 18.1 mm (nom. length)
- 8-bit grayscale (256 levels of gray)
- Module size - standard outline (approximate): 60.2 mm x 32.4 mm x 11.0 mm
- Compatible with USB 1.0, 1.1 and 2.0 (Full Speed) specifications
- Indoor, home and office use

### Product Description

The U.are.U 4500 Module is a miniature USB fingerprint reader designed for integration into OEM equipment where fingerprint verification or identification is needed.

This self-contained module optically scans the fingerprint when the user touches the glowing window. Optical technology gives the highest quality fingerprint scans and reliability.

The U.are.U 4500 Module is designed to simplify OEM integration. The module is sealed from dust and includes convenient mounting features. The on-board electronics automatically control calibration, encryption, and data transfer over the USB interface.

A "Heavy Duty" version of the module is available for unattended public installations and other high-use applications.

The "Small Footprint Outline" version of the module is ideal for space-constrained applications such as keyboards, touch screens and POS terminals.

The U.are.U 4500 Module and DigitalPersona<sup>®</sup> Fingerprint Recognition Engine have an unmatched ability to authenticate even the most difficult fingerprints accurately and rapidly. DigitalPersona's enterprise solutions and developer tools are perfectly suited to this device.

Part Number	Form Factor	Fingerprint Surface
50012-001	Standard outline	Standard coating
50012-0H1	Standard outline	Heavy Duty coating
50012-F01	Small footprint	Standard coating
50012-FH1	Small footprint	Heavy Duty coating

### Ratings

<b>Supply Voltage</b>	5.0V ±5%
<b>Supply Current—scanning</b>	< 100 mA (Typical)
<b>Supply Current—idle mode</b>	120 mA (Typical)
<b>Supply Current—suspend mode</b>	< 0.5 mA (Maximum)
<b>ESD Susceptibility</b>	>15 kV, mounted in case
<b>Temperature, Operating</b>	0 - 40 C
<b>Humidity, Operating</b>	20% - 80% non-condensing
<b>Temperature, Storage</b>	-10 - 60 C
<b>Humidity, Storage</b>	20% - 90% non-condensing
<b>Scan Data</b>	8-bit grayscale
<b>Standards Compliance</b>	RoHS, WEEE, UL, USB, WHQL
<b>Weight</b>	16 grams
<b>Interface</b>	USB 2.0 Full-speed High Power Device

### Connector Pinout

Pin 1:	+5V
Pin 2:	Ground
Pin 3:	Ground (shield)
Pin 4:	USB D-
Pin 5:	USB D+

### Connector Type - Standard Outline:

Hirose DF13-5P-1.25DS/equivalent

### Connector Type - Small Footprint:

Hirose DF13-5P-1.25DSA/equivalent

Technical data subject to change without notice.