



The Venus Series OEM Module Multispectral Fingerprint Sensors



Offering unparalleled performance, flexible outputs and spoof detection... in any setting!

Lumidigm Venus Series OEM fingerprint sensors unleash an individual's subsurface fingerprint to increase biometric performance and make your application more secure and reliable. The Venus Series sensor returns superior images on anyone, anytime, in any environment.

- **Performance** A Venus Series OEM Module will enhance the throughput and accuracy of any application. High-quality images are captured by Lumidigm sensors even when fingerprint ridges are hard to distinguish due to genetics, age, dirt, finger placement, or environmental conditions. Venus Series sensors can easily enroll and verify ALL people — including that 2-5% of the population with “problem fingerprints” that thwart conventional sensors. The Venus Series greatly reduces management hassles along with end-user frustration.

- **Flexible outputs** Designed for easy integration into any system, Venus Series OEM Modules have flexible output options to meet your application needs. All models output the fingerprint image. A template or match score also can be output.

- **Spoof detection** Eliminate performance problems associated with conventional fingerprint sensors. Venus Series sensors protect against fake and spoof fingerprints by capturing detailed surface and deep tissue data. Using the biometric industry's best spoof detection technology, we provide the most secure and accurate sensors available.

Benefits

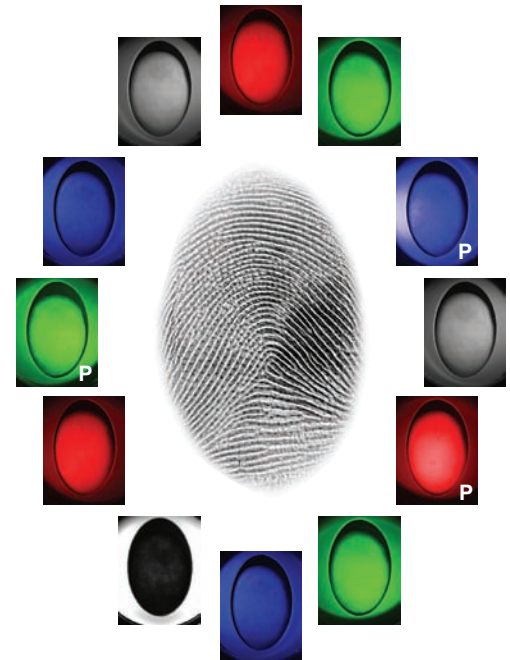
- ✓ The industry's best fingerprint images
- ✓ Meets high-performance challenges
- ✓ Designed for easy integration
- ✓ Protects against fakes and spoof fingerprints
- ✓ Eliminates failure to enroll (FTE) and failure to acquire (FTA) headaches
- ✓ Enables high throughput
- ✓ Requires minimal maintenance
- ✓ Yields a high return on investment for integrators and end-users

Features

- ✓ Patented multispectral imaging technique looks at and beneath the skin surface, simultaneously
- ✓ Flexible, powerful device outputs
 - Image • Template • Match score
- ✓ Compact design
- ✓ State-of-the-art spoof prevention via adaptive multispectral image analysis (optional)
- ✓ Expansive operating range
 - -10–50° C (14–122° F), wet or dry
- ✓ 500 dpi

Image is Everything

The accuracy and reliability of any fingerprint biometric is dependent on the image quality of the print itself. Bad images lead to bad results. Lumidigm's patented multispectral imaging system uses multiple wavelengths of light to capture an image of both a person's external fingerprint and their identical "internal fingerprint". The internal fingerprint lies about 2 millimeters (1/8 of an inch) under the surface of the skin. It is made up of tiny blood vessels called capillaries and the pattern is identical to the surface print. Even if the external print is damaged or obscured, multispectral imaging uses the internal print data to ensure clear, clean images of anyone in any environment.



Spoof Detection

Lumidigm makes fingerprinting safe from spoof attacks. By capturing detailed surface and subsurface data from the fingertip, Lumidigm reliably detects fakes and spoof fingers. To date, Lumidigm has tested and detected over 20,000 spoof samples. Using over 100 measured features, Lumidigm continually enhances its detection capability to eliminate future spoof threats. With the biometric industry's best spoof detection capability, Lumidigm is committed to providing the most secure sensors available.



Spoofs created from a variety of materials

The Lumidigm Advantage

	Dry	Wet	Dirty	Elderly	High ambient light
Lumidigm					
Competitor			No image		No image

Venus V100 OEM Module Fingerprint Sensor Specifications

Image	
Resolution	500 dpi
Platen size	0.7" x 1.1" ellipse
Environmental	
Temp. (operating)	-10–50° C (14–122° F) Cold range can be extended, without loss of performance, with the addition of a heater.
Humidity (operating)	0–100% condensing with outdoor-rated customer enclosure 10–95% RH non-condensing without enclosure
ESD	15 kV
Power	
Supply voltage/current	+5 VDC 500mA (max)
Outputs	
Image	ANSI 381 compliant
Template	ANSI 378 compliant, Minex certified
Score	Requires ANSI 378 template input
Timing	
Placement to image	1.0 seconds (typical)
Placement to template	2.0 seconds (typical)
Placement to score	2.0 seconds (typical)
Interfaces	USB 2.0, RS-232
Physical	
Overall dimensions	2.68" W x 2.61" L x 2.02" H 6.8 cm x 6.6 cm x 5.1 cm
Housing	Polycarbonate plastic, glass fiber reinforced; platen area is IP65

Ver 1.5

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