

U20-ASF™

U20-ASFx™

All-in-One Fingerprint OEM Module

Designed for developers with expansion in mind, the U20-ASF series was built on the world's first biometric development platform that is both software and hardware extendable.

The U20-ASF series offer device manufacturers a flexible, expandable, and easy to use environment that simplifies the way to embed fingerprint capability into a very wide range of products.



The Highest Quality in Fingerprint Biometrics at Affordable Prices

Accurate

SecuGen sensors are very accurate thanks to an ultra-compact, patented optic design that produces high quality images for greater precision, less false rejections/false acceptances, and better overall performance compared to competing fingerprint sensors.

Durable

With a virtually indestructible sensor prism, the SecuGen sensor is extremely rugged. SecuGen sensors are designed to be strong for dependable and consistent scanning even outdoors and under harsh or high traffic environments.

Maintenance-free

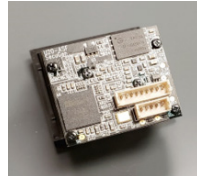
Unlike semiconductor-based sensors and other optical sensors, SecuGen sensors are made with hardened glass that needs no coatings or special protection. SecuGen sensors resist scratches, ESD, corrosion, and other stresses and can be easily wiped clean without fear of damage.

Cost-effective

SecuGen designs, develops, and manufactures its own fingerprint sensors that are built to last and deliver solid performance for years, making SecuGen sensors the most cost effective choice.

Technical Specifications

U20-ASF, U20-ASFX



CPU	1 GHz MIPS
Operating System	Linux Kernel 3.10.14
User Capacity	U20-ASF: 1,000 users (2,000 templates) U20-ASFX: 10,000 users (20,000 templates)
Host Communication	Serial (CMOS 3.3V Level)
External Interface	GPIO, Wiegand
Supply Voltage	3.3V or 5V
Current Consumption	U20-ASF: 180 mA (max @3.3V) U20-ASFX: 250 mA (max @3.3V)
Fingerprint Sensor	U20-A
Image Resolution	500 DPI
Image Size	300 x 400 pixels
Platen Size	18.2 x 22.9 mm
Sensing area	15.24 x 20.32 mm
Image Grayscale	256 levels (8-bit)
Light Source	LED
Fingerprint Template Compliance/Certification	SecuGen, INCITS 378, ISO 19794-2 FBI (PIV, FIPS 201, Mobile ID FAP 20), STQC
Dimensions	34.0 x 49.0 x 22.9 mm
Weight	25 g
Operating Temperature	-20 to 65 C
Operating Humidity	90% or less RH, noncondensing
Water Resistance	Available with U20-A-WR sensor

FBI Certified

Description

As the flagship core of the Unity™ family of products, the U20-ASF is an advanced, stand-alone fingerprint recognition system that captures and stores fingerprint data and identifies or verifies registered users all.

Designed as an all-in-one device that functions entirely without an external PC, the U20-ASF can be integrated into products such as mobile devices, access control units, door locks, ATMs, point of sale equipment, and industrial equipment.

The U20-ASF boasts the following features that are all integrated into a single ultra-compact fingerprint module:

- The U20-A optical sensor, a ruggedized high image quality fingerprint sensor that is FBI Certified for PIV Single Finger Capture Devices and Mobile ID FAP 20 Compliant
- An open Linux platform that facilitates the development of custom applications
- Libraries that utilize SecuGen's extremely fast NIST MINEX-compliant fingerprint template generator and matching algorithms

The U20-ASFX is a high-capacity version of U20-ASF that supports up to 10x more users or templates.

Capabilities

The U20-ASF and U20-ASFX communicate with external devices through a CMOS serial interface and is interoperable with data input from SecuGen USB fingerprint readers for a wide variety of implementations. Included is SecuGen's Fingerprint Management System (FMS), a listener application that responds to serial commands and provides the following key functions:

- Fingerprint Capture
- Minutiae Extraction
- Template Matching
- Template Enrollment and Management
- Reporting
- Relay/Wiegand output

With the Unity DK, you have the option to develop fully customized applications to run on the device instead of using the FMS. This is ideal for complex applications that may require customized capabilities such as cryptography, networking, GPIO, serial LCD or keypad integration.

SecuGen

Open the World with Your Fingertip!®

Founded in 1998, SecuGen is a leading provider of advanced optical fingerprint recognition technology for physical and information security. Our high quality biometric sensors have been used all around the world in diverse areas such as finance, health care, law enforcement, education, retail, manufacturing, and government at all levels.

www.secugen.com