XU20ASCL Datasheet
Hamster Pro Trio™

Thank you for your interest in SecuGen fingerprint technology. We focus all our efforts on creating the highest possible quality in fingerprint sensor technology at an affordable price. We hope that this product meets your requirements, and we welcome your feedback.

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1. General Description

Hamster Pro Trio is a combination fingerprint reader and smart card reader that supports both contact and contactless cards. This 3-in-1 USB device provides multi-factor authentication based on biometrics and smart cards for increased security with convenience. Hamster Pro Trio features the SecuGen U20-A fingerprint sensor, making it compatible with applications made for the Hamster Pro 20™ (HU20-A) fingerprint reader. The smart card readers in the device are compatible with applications made for the Identiv uTrust 2700R smart card reader and the AB Circle CIM315A contactless smart card reader.

Key Features

- Auto-On™ Automatic Finger Detection
- Smart Capture™ for difficult fingerprints
- USB 2.0 compliant, USB-powered
- FBI FIPS 201, PIV and Mobile ID FAP 20 compliant fingerprint sensor
- ISO 7816 & EMV Level 1, PC/SC and CCID compliant contact smart card reader
- ISO/IEC 18092 NFC, ISO 14443 Type A & B, MIFARE, FeliCa compliant contactless smart card reader
- Device drivers and fingerprint SDKs available for most popular operating systems (Windows, Linux, Android)

Possible Applications

- National ID Card and Identity Programs
- PIV (Personal Identity Verification) and CAC (Common Access Card) Applications
- Physical and Logical Access Control
- Time and Attendance

2. Technical Specifications

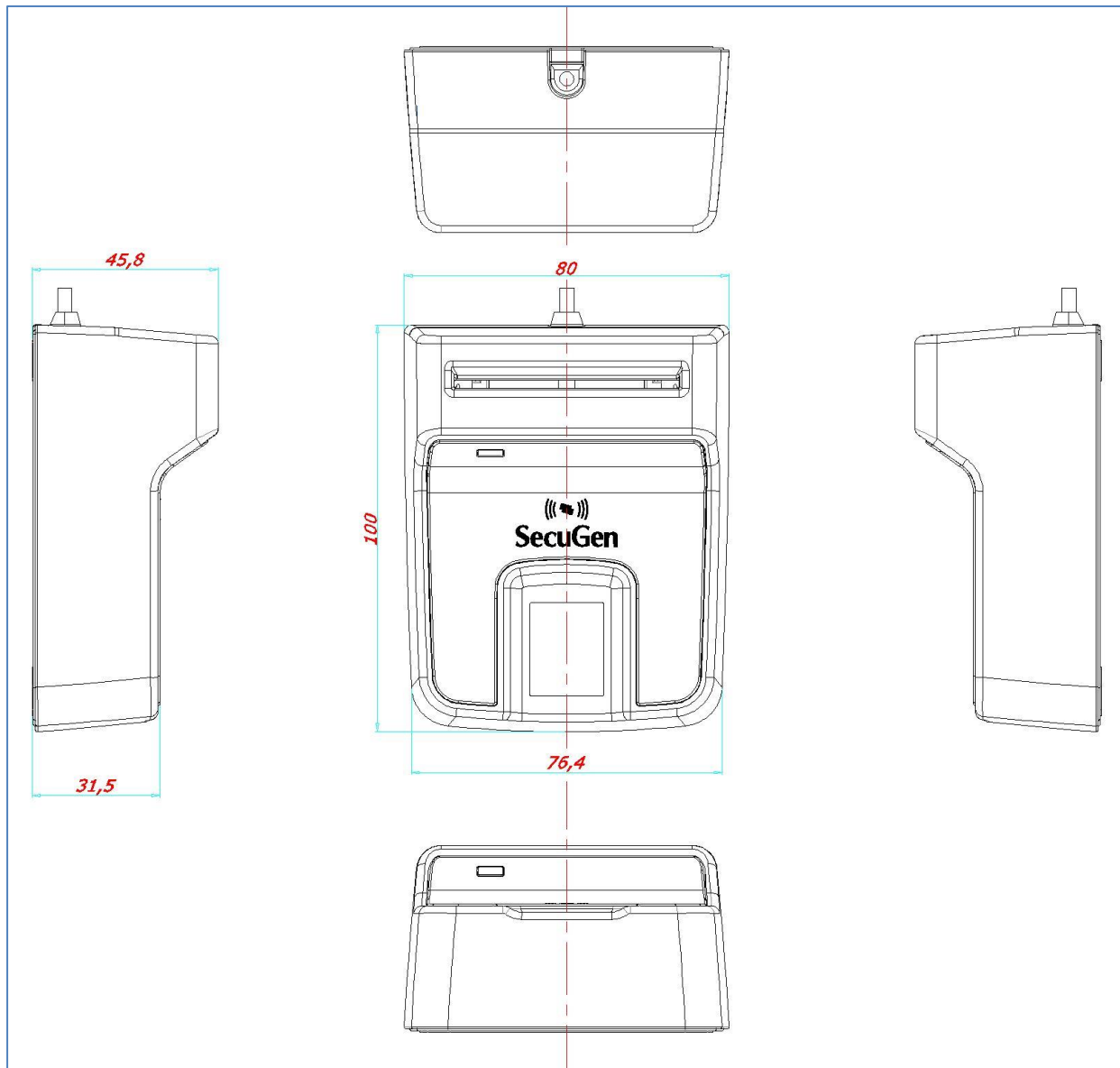| General	
Dimensions	80 mm (W) x 100 mm (L) x 45.5 (H) mm
Operating Temp. / Humidity	0°C ~ 55°C / 90% RH (max., non-condensing)
Weight	185 g
Supply Voltage	5.0V DC ± 5% via USB connection
Current Consumption	300 mA (max.)
USB Interface	2.0 Full-Speed, 2.0 Hi-Speed (fingerprint reader only)
Certifications/Environmental	FCC, CE, RoHS, Microsoft WHQL, FIPS 201
Operating Systems Supported	Windows 11 / 10 / 8.1 / 8 / 7, Windows Server 2016 / 2012 / 2008 R2, Android 3.1+, Linux
Fingerprint Reader	
Model	SecuGen U20-A Optical Fingerprint Reader
Image Resolution	500 PPI
Image Size	300 x 400 pixels
Platen Size	18.2 mm x 23.1 mm
Effective Sensing Area	15.24 mm x 20.32 mm
Image Grayscale	256 levels (8-bit)
Light Source / Typical Lifetime	LED / 60,000 hours
Fingerprint Capture Time	0.2 ~ 0.5 second with Smart Capture
Contactless Smart Card Reader	
Model	AB Circle CIM315F-01 Compact Contactless Smart Card Reader
Standards	ISO/IEC 18092, ISO/IEC 14443 Type A & B, ISO/IEC 15693
Protocols	T=CL (translated to T=1 for PC/SC compliance)
Operating Frequency	13.56 MHz
Reading Distance	Up to 50 mm (depending on tag type)

Smart Card Read/Write Speed	Up to 848 kbps
Supported Card Types	ISO/IEC 14443-4 Type A & B Cards, ISO/IEC 15693-3 Cards, MIFARE series, FeliCa, Calypso, NFC Tags
SAM Card Interface	ISO/IEC 7816, T=0, T=1 protocols
Supported APIs	PC/SC
Compliance	ISO/IEC 18092, ISO/IEC 14443, ISO/IEC 15693, ISO/IEC 7816, USB 2.0 Full Speed, CCID
Contact Smart Card Reader	
Model	Identiv CLOUD 2100 R (uTrust 2700 R) Contact Smart Card Reader
Standards	ISO/IEC7816 ID1, Class A/B/C support, T=0, T=1 protocol EMV 2011 Ver 4.3 Level 1
Smart Card Interface	ID1 8 pin sliding contact, Card present switch, C4/C8 support
Data Transfer Rate	Up to 600 kbps (depending on card), TA1=97
Supported APIs	PC/SC API, CT-API (through wrapper on top of PC/SC), M-Card API (through wrapper on top of PC/SC)
Compliance	EMV 2008 V4.2 Level 1, ISO/IEC7816, USB 2.0, CCID, Microsoft® WHQ
Certifications	CE, FCC, UL94, UL60950, VCCI, ICES, ANZ, HBCI, GSA APL, RoHS2, REACH, WEEE

3. Dimensions

Dimensions (mm)

4. Ordering Information

Product	Part Number	Description
Hamster Pro Trio (XU20ASCL)	EA4-0522ASCL	Combination USB device with fingerprint reader, contact smart card reader, and contactless smart card reader, with USB cable
Cable options	Suffix:	
	NC	Unit without USB cable
	M	Unit with micro USB cable
	C	Unit with type C USB cable
	SA	Unit with short standard USB cable
	SM	Unit with short micro USB cable
	SC	Unit with short type C USB cable

Product	Part Number	Description
SDKs & Device Drivers	N/A	For SecuGen U20-A Fingerprint Reader: SDKs: https://secugen.com/products/sdk Drivers: https://secugen.com/download For AB Circle CIM315F-01 Contactless Card Reader: Drivers and Tools (same as CIM315A): https://www.abcircle.co.jp/en/product/7/CIM315A/contactless-smart-card-reader-module-with--detachable-antenna/ For Identiv CLOUD 2100 R Contact Card Reader: Drivers and Tools (same as uTrust 2700R): https://support.identiv.com/2700r

SecuGen Sales Contact
Sales@secugen.com
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5. FCC Declaration of Conformity

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note:

SecuGen Corporation is NOT responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

This equipment complies with FCC RF exposure requirements set forth in an uncontrolled environment and can be used without any restriction.