



Operation Description

XU20ASCL Operation Description



XU20ASCL is a combination fingerprint reader and smart card reader that supports the USB (Universal Serial Bus) 2.0 interface, utilizes the Plug & Play architecture, and is hot-swappable.

1. Specification

General	
Supply Voltage	5.0V DC $\pm$ 5% via USB connection
Current Consumption	300mA (max.)
USB Interface	12.0 Full-Speed, 2.0 Hi-Speed (fingerprint reader only)
Fingerprint Reader	
Model	SecuGen® U20-A™ Optical Fingerprint Reader
Supply Voltage	LED board : 5.0V DC Sensor board : 3.3V, 2.8V, 1.8V DC
Operating Frequency	24 MHz
Light Source	LED

RF Smart Card Reader	
RF Standards	ISO/IEC 18092, ISO/IEC 14443 Type A & B, ISO/IEC 15693 T=CL protocol(translated to T=1 for PC/SC compliance)
Operating Frequency	13.56 MHz
SAM Card Interface	ISO/IEC 7816, T=0, T=1 protocols
Output	Status Buzzer
Contact Smart Card Reader	
Standards	Fully Compliant with ISO/IEC 7816, EMV, and PC/SC Standards Full Support of both T=0 and T=1 protocols
Operating Frequency	12 MHz
Output	Status LED

2. Operating

- **Fingerprint**
You can use the utility to capture your fingerprint.
When captured, the green LED lights up.
- **Contact Smart Card reader**
When the ISO7816 Contact Smart Card is inserted into the slot, the card is recognized by the reader, and ATR (Answer to Reset) is read.
When the card is recognized, the yellow LED lights up.
- **RF Smart Card reader**
When the ISO14443 RF smart card touches the antenna, the reader recognizes the card and reads the Answer to Reset (ATR).

Since the card reader operates all the time, the card can be recognized when it comes within a recognizable distance.

When the card is recognized, the buzzer works.