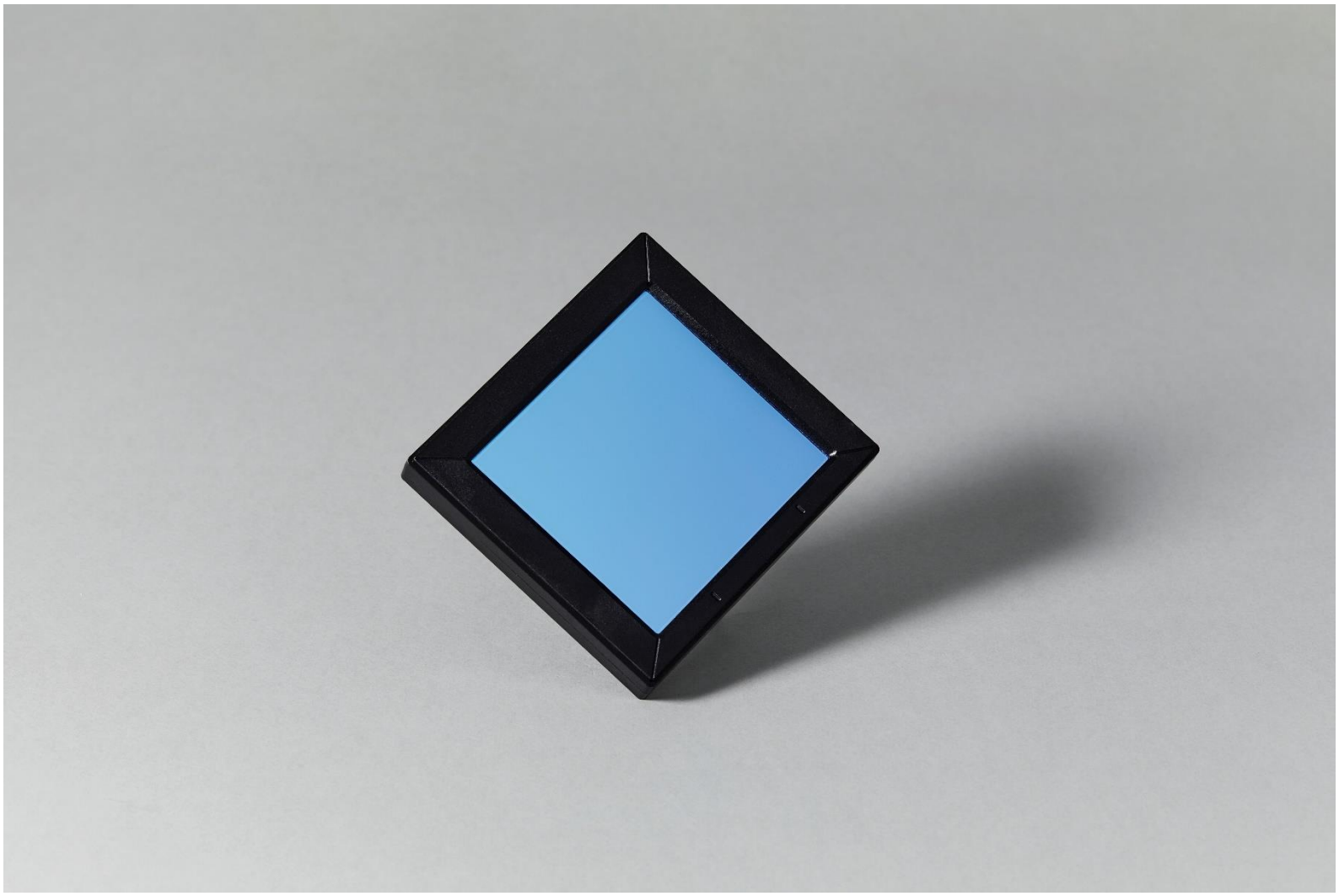
xperix

RealScan S60M

Ultra Slim, Lightweight, and Easy to Integrate Live scanner

User Manual



INTRODUCTION

1. RealScan S60M

RealScan S60 is the FBI Appendix F certified, Ultra Slim, and Lightweight Fingerprint live scanner. In combination with Xperix's proprietary fingerprint algorithm and an advanced TFT(Thin Film Transistor)-optical technology, RealScan S60 enables capture of the highest fingerprint image quality flat and rolled fingers with little effect from various fingerprint conditions. RealScan S60 provides advanced artificial Intelligence-based Live Finger Detection technology which is compliant with ISO 30107-3 PAD Level 1 & 2 Standard. Applying LFD technology, RealScan S60 distinguishes fake fingerprints made from various materials including clay, rubber, silicon, glue, paper, film, and more. Its small form factor optimized not only for desktop solutions but also for easy integration into portable devices, provides a significant advantage for customers to maximize the benefit from their product and solution.

2. Features

- Advanced TFT (Thin Film Transistor)-optical technology applied
- FBI IQS Appendix F Certified
- Best fingerprint image quality for flats and rolls regardless of the physical condition of fingers
- Machine-learning based Live Finger Detection (LFD) Technology
- Optimized for easy integration into mobile and desktop devices
- High-speed and seamless fingerprint image pre-processing
- Rugged IP65 dust and water-proof structure
- USB 2.0 high speed transmission for data and power management
- USB Type-C: small, compact, and easy to connect
- Prevent external light, halo effect, and ghost images

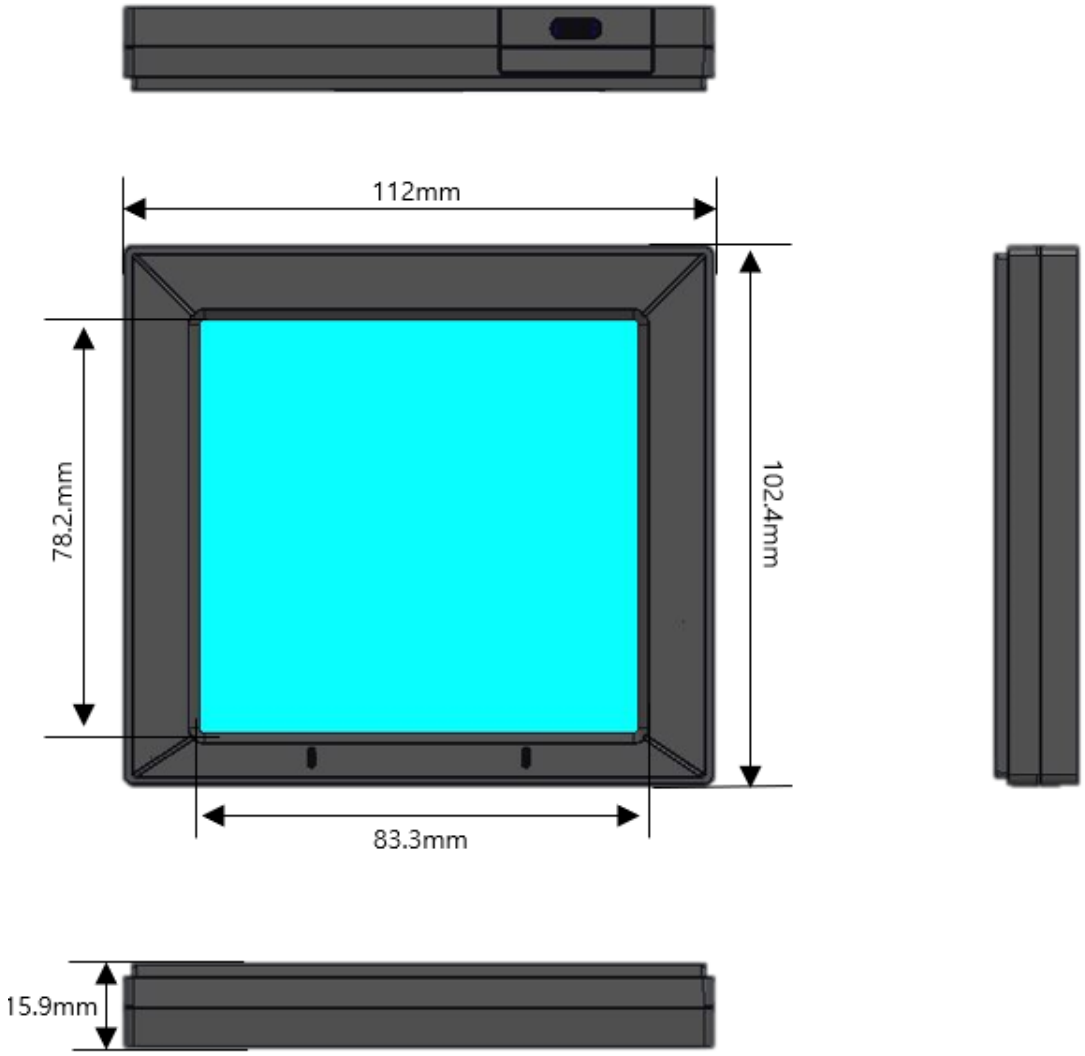
FEATURES AND SPECIFICATIONS

3. Specifications

Fingerprint Types	single rolls / single flats / dual-finger flats / four-finger slaps upper & lower palm-prints, writer's palm-prints
Resolution/Gray scale	500 dpi / 256 gray levels
Dimension (W x L x H)	102.4 x 112 x 15.9 mm
Platen Size (W x L)	83.3 x 78.2 mm (3.28'' x 3.07'')
Capture Size (W x L)	81.28 x 76.2 mm (3.2'' x 3.0'')
Image Size (W x L)	Flat Single: 800 x 750 Flat Two: 900 x 900 Flat Four: 1600 x 1500 Rolls: 800 x 750
Live Finger Detection	PAD Level 1,2 confirmed by Bixelab
Image Quality Standards	FBI IQS Appendix F
Ingress Protection	IP65
Operating Temperature	-10℃ ~ + 55℃
Operating Humidity	From 10 to 90%, non-condensing
Power Supply	USB Host
Weight	189g
Interface	USB 2.0 High Speed
Operating Systems	Windows: 7, 8, 8.1, 10 32 / 64bit Linux: Ubuntu, Debian, Fedora, Cent OS 32 / 64bit Android 5.0+ (Custom 4.0)
Certificate	FBI, KC, CE, FCC, UL, IEC62471, WEEE, RoHS, REACH, WHQL, USB-IF

Exterior

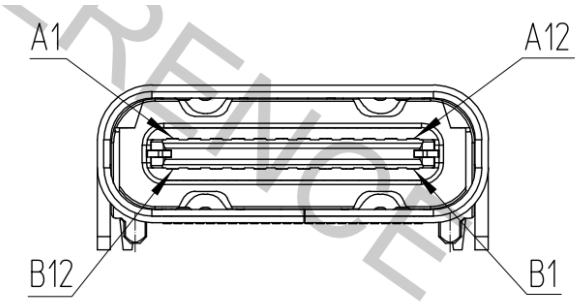
4. Picture – Design Details



5. Mounting Guide



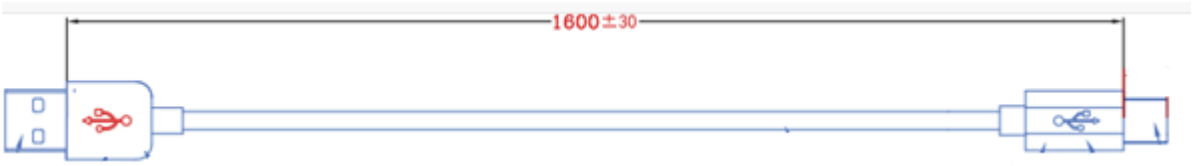
Pin-Map

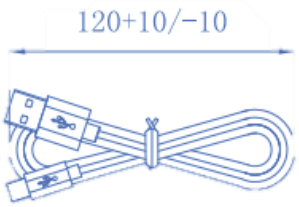


A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
GND	TX1+	TX1-	V_{BUS}	CC1	D+	D-	SBU1	V_{BUS}	RX2-	RX2+	GND
GND	RX1+	RX1-	V_{BUS}	SBU2	D-	D+	CC2	V_{BUS}	TX2-	TX2+	GND
B12	B11	B10	B9	B8	B7	B6	B5	B4	B3	B2	B1

6. Accessory

USB Type C to A Cable – 1,600mm





7. Notes for Fingerprint Scanning



Top Scanning

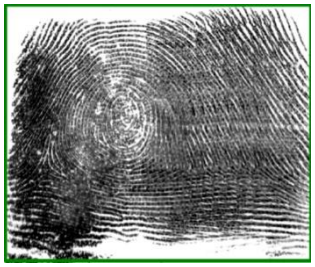


Side Scanning

- Top Scanning: If only the top of a finger is placed on the scanning area, only the top of the finger part will be scanned.
- Side Scanning: If only the side of a finger is placed on the scanning area, and if the center of the finger is not placed on the scanning area, only the side of the finger part will be scanned.



Distorted image



Slippage Image

- Distorted Image: When a finger is placed on the scanning area with too much pressure, the image may become distorted as the important data in the fingerprint disappear.
- Slippage Image: When a roll capture is scanning, if a finger slips are detected, the image may become extended.

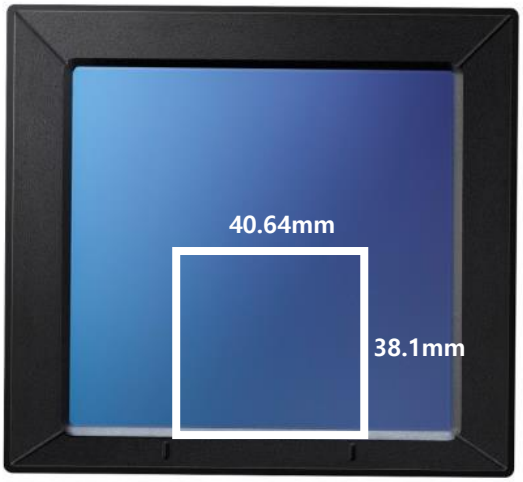


Good Fingerprint Image



Good Roll Fingerprint

- To scan a fingerprint successfully, place the finger at the center of the scanning area with reasonable pressure.
- If a fingerprint image is blurred, remove pressure from the finger and scan the fingerprint again when a fingerprint image is good.
- If a fingerprint image is slipped, roll the finger with normal speed, and scan the fingerprint again. If so, you can scan the fingerprint without slipping or blurring.



Good Position