

SUPREMA NEWSLETTER 2016 Q3



NEW PRODUCT RELEASE

BioMini Plus 2™

FBI & STQC Certified Fingerprint Authentication Scanner

TECHNICAL COLUMN

**Multi-dynamic Range Technology:
breakthrough in image processing**

CASE STUDY

**Suprema Fingerprint Solution
for SIM Card Registration in West Africa**

TECHNICAL UPDATES

**BioMini SDK Now Supports Web Client
for Improved Accessibility**

BioMini SDK 3.6.0 WebAgent Update

UPCOMING EVENT

Suprema at TRUSTECH 2016



NEW PRODUCT RELEASE

BioMini Plus 2™

FBI & STQC Certified Fingerprint Authentication Scanner

Suprema BioMini Plus 2 has been designed to provide high level security solution with its proven reliability of FBI-PIV & STQC certifications. BioMini Plus 2 features industry's most advanced MDR(multi dynamic range) technology to capture exceptional image quality even under extreme lighting conditions. Combined with ergonomic design, high speed USB 2.0 interface and comprehensive SDK solution, BioMini Plus 2 offers superb biometric authentication solution for both public and commercial applications.



BioMini Plus 2 Certifications



FBI PIV/FIPS 201 Certification

FBI PIV/FIPS 201 certification ensures that BioMini Plus 2 scanners are in compliance with FBI's next generation identification system image quality specifications.



FBI Mobile ID FAP 10 Certification

FBI Mobile ID certification guarantees the reliable operation of BioMini Plus 2 scanners under mobile environments, based upon specific capture dimensions (FAP 10).



STQC Certification by UIDAI

STQC certification ensures that BioMini Plus 2 scanners fully comply with the standards, specifications and quality measures released by UIDAI for UID applications of the India government.

Multi Dynamic Range (MDR) Technology

Suprema's patented Multi Dynamic Range technology guarantees high-quality image capture even under extreme lighting conditions (operates under direct sunlight up to 100,000 LUX) and regardless of the moisture level of finger skin. The MDR technology especially developed for mobile environments where there are more dynamics in lighting and moisture conditions.

**Find out more on MDR technology in this newsletter page 4-5*

Tested under 100,000 LUX direct light



Complete Mobile Authentication Solution

With its high-speed USB interface, BioMini Plus 2 perfectly fits into mobile authentication environments by providing extensive Android support, IP65 ingress protection and MDR.

Live Fingerprint Detection (LFD) Technology

Suprema LFD technology effectively prevents possible fraud and spoofing attempts by distinguishing fake fingerprints made from various materials including clay, rubber, silicon, glue, paper, film and more.

Specifications

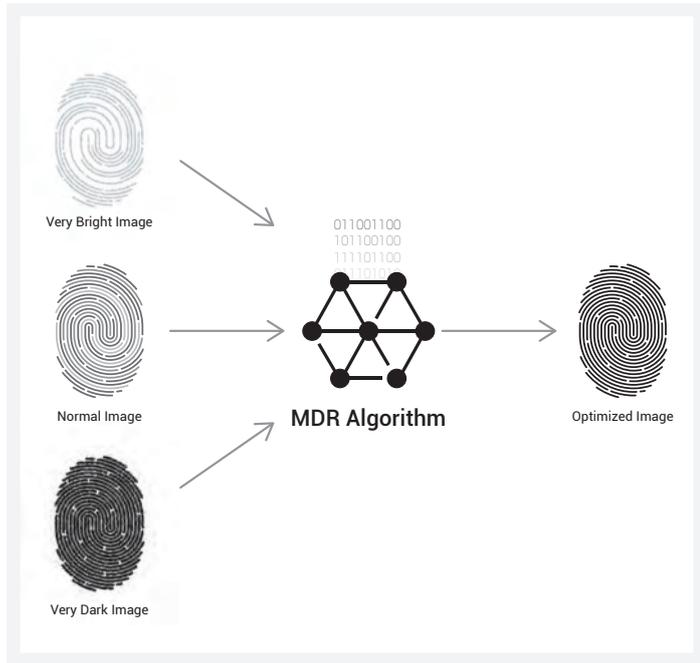
Main	Sensor Type	Optical
	Resolution	500dpi / 256 gray
	Platen Size	16.0 x 19.0 mm (0.63" X 0.75")
	Sensing Area	16.0 x 18.0 mm (0.63" X 0.71")
	Image Size	315 x 354 pixels
	Compression Standards	WSQ
	Template Format	Suprema, ISO19794-2, ANSI-378
	Image Format	ISO19794-4, RAW, BMP, WSQ, ISO 19794-4
	Image Certificate	FBI PIV/FIPS 201, FBI Mobile ID FAP10, STQC
	Live Fingerprint Detection	Supported
	Latent Detection	Supported
	IP65	Supported (Sensor Surface), Scratch free
Interface	USB	2.0 High-speed
Hardware	Operating Temp./Humidity	-10°C ~ 50°C / 0~90%
	Certification	CE, FCC, KC, RoHS, USB-IF, CB, IEC62471, WEEE, WHQL
	Dimensions	66 x 90 x 58 mm (W x L x H)
Compatibility	Operating System	Windows / Linux (32/64bit)/Android 4.1 & Above

Applications

- PC/Network Security
- Time and Attendance System
- Healthcare
- Banking/Finance
- ATM/Kiosk
- Smartcard Application
- Public Application
- Telecommunication
- POS/mPOS
- Enterprise

TECHNICAL COLUMN

Suprema Multi-dynamic Range (MDR) Technology



FINGERPRINTING IN MOBILE ENVIRONMENT

Compared to the fingerprint access control devices installed in a fixed position, fingerprint authentication scanners are more likely to be used in varied positions and locations.

Environmental factors, in particular ambient light, have a great influence on capturing fingerprints and often cause a decrease in the quality of captured fingerprint images.

Unique to the industry, Suprema has developed Multi-Dynamic Range (MDR) technology which ensures consistency in the quality of fingerprint images regardless of lighting conditions and the moisture level of finger skin. Suprema's patented MDR technology is available in selected BioMini models, namely BioMini Plus 2, BioMini Combo and BioMini Slim. MDR technology delivers greater benefits to mobile authentication applications where fingerprint scanners are connected with mobile devices in varied locations and positions.

MDR (MULTI DYNAMIC RANGE) TECHNOLOGY

Suprema's patented MDR technology works in a similar mechanism to HDR of cameras. With Suprema's unique image processing algorithm, MDR technology smartly blends high-brightness images and dark images of the same object to gain optimal image quality regardless of lighting conditions.

The fingerprint image acquisition methods exquisitely enhances the bright and dark parts of the image hence producing optimal results without any loss in details. With the MDR technology, BioMini scanners can produce uncompromised image quality even under direct sunlight of up to 100,000 LUX.

You can also obtain the optimal image, without any problems even for dry or wet fingers. MDR technology makes the highlights appear lighter and shadows appear darker with your fingerprints. This can help you fine-tune fingerprint images acquired in accordance with express contrast.

20,000 LUX - Indirect Light, Normal Conditions

Light Direction	Vertical	Front	Back	Side
MDR ON				
MDR OFF				

100,000 LUX – Direct Light, Extreme Conditions

Light Direction	Vertical	Front	Back	Side
MDR ON				
MDR OFF				

CASE STUDY

Suprema Fingerprint Solution for SIM Card Registration in West Africa



PROJECT BACKGROUND

The widespread use of mobile phones is regarded as one of the successful economic cases in Africa. When it comes to growth of mobile phone users, sub-Saharan Africa ranks among the top regions in the world. However, to prevent SIM (Subscriber Identity Module) fraud in these dynamic societies, new regulations and schemes have been introduced across Africa. These mandates, which require the registration of identity information to activate a mobile SIM card, are fast becoming universal in Africa, with little to no public debate about the wider social or political effects. All countries in the West Africa region have also introduced mandatory registration of users of prepaid SIM cards with their personal identity details including name, national identification number, address, photograph and fingerprints.

The end-user is one of the leading mobile operators in Africa, operating in many sub-Saharan countries and is a major West African mobile communication provider. The customer operates nation-wide SIM card registration facilities on its outlets, and hence required a fingerprint authentication solution for its SIM card registration conforming to local government regulations. Considering dynamics in climate and environmental conditions, the customer required a robust, reliable and fast-matching fingerprint authentication solution.



FBI Mobile ID
FAP20



Android
Support



Works under
Direct Sunlight



Rugged IP65
Structure



Live Fingerprint
Detection

OUR SOLUTION

Prior to the project, the customer deployed a biometric SIM card registration system throughout the country using 3rd party solutions. Mobile Technologies, Suprema's integration partner in the west African region, has worked closely with the customer for various projects across the continent and was in position to look for best fingerprint capturing solution in the market.

Through Mobile Technologies, Suprema helped the customer to implement a fingerprint authentication system that requires new subscribers to authenticate their biometric credentials on their SIM card registration. Fingerprint SIM card registration is to create an accurate user database for tracking SIM card usage, to prevent fraud, and to stop criminals from selling pre-activated SIM cards. Adoption of the Suprema-Mobile Technologies biometric identification solution has helped the customer to implement and operate a centralized database with nation-wide authentication facilities that includes 2,000 scanning devices for over 3 million SIM card user fingerprint templates to more easily trace and track mobile activities.



For the project, Suprema has successfully implemented 2,000 units of BioMini Slim fingerprint authentication scanners for use in SIM card registration spots. On top of its proven reliability and performance, BioMini Slim also offers a number of advantages. To cope with varying environmental conditions, BioMini Slim offers rugged IP65 ingress protection and Suprema's patented MDR (multi-dynamic range) technology which ensures consistent quality of image capturing even under direct sunlight. The scanner's Android-compatibility helped easier integration and operation with mobile devices.

TECHNICAL UPDATES

BioMini SDK Now Supports Web Client for Improved Accessibility

BioMini SDK 3.6.0 WebAgent Update

With the latest update of the BioMini SDK, BioMini users can now connect and control their BioMini scanners over the web browser without installing any software on their PC or mobile devices.

Accessibility

Connect and control BioMini scanners from any PC or mobile device with a web browser

Extendibility

No more need for Active X and NPAPI to operate BioMini scanners

Convenience

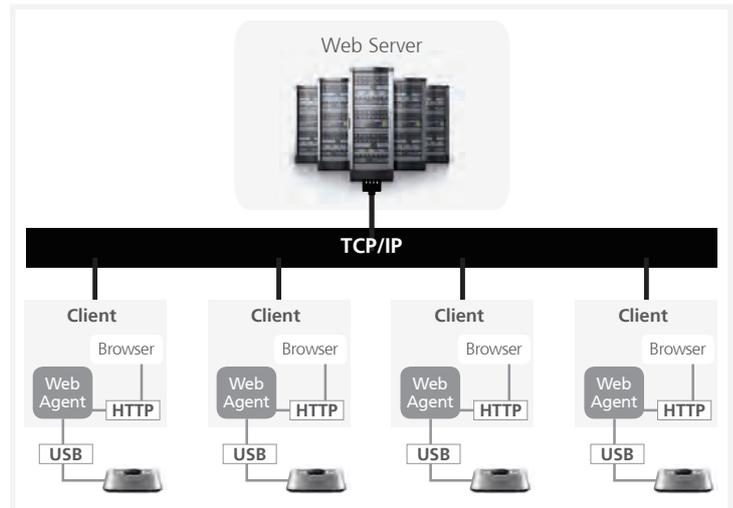
Simply add Java script on web applications to operate BioMini scanners

Security

Improved level of security by supporting HTTPS

Stability

Independent structure of web applications and device for added stability



BioMini SDK 3.6.0 is now available. Please contact your Suprema sales personnel or contact us at enquiry@suprema.co.za

Visit Suprema at TRUSTECH 2016



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