

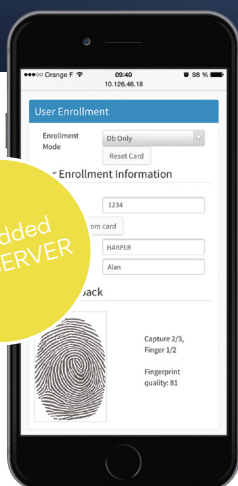
MorphoAccess[®] SIGMA Lite Series BY IDEMIA



Connected
Objects

Slim and powerful fingerprint access terminals

Compatible with
Morpho and **biocrypt**[®]
existing installations



Embedded
WEB SERVER

World's #1 fingerprint technology inside

1:10,000 user identification in 1 second

High capacity

30,000 templates, 250,000 IDs
in authorized user list, 1 Million logs

Flexibility

Prox[®], iClass[®] or MIFARE[®]/DESFire[®]/
NFC contactless card reader as an option

Anti-fraud features

Fake finger detection, duress finger,
timed anti-pass back

Tough design

IP65 rated and vandal resistant (IK08)

The SIGMA family welcomes new members!

Engineered with the same attention to detail and performance as their predecessor, the MorphoAccess® SIGMA Lite terminals by IDEMIA are specifically designed to equip narrow mounting surfaces, such as glass/aluminum door mullions, turnstiles, or server rack doors.

With two designs and multiple card reader options, there are a variety of models to address the widest range of deployment scenarios, both indoors and outdoors.

MA SIGMA Lite

With blue/green/red LED indicator and buzzer

60 mm

World's #1 fingerprint technology inside

- Morpho fingerprint technology ranked #1 by NIST for accuracy
- Up to 10,000 users (30,000 templates) in 1:N identification mode
- 1:10,000 user matching in 1 second
- Accuracy maintained regardless of number of users in database
- FBI PIV IQS certified optical sensor

Full set of card reader options

- Prox®
- iClass®
- MIFARE®/MIFARE® Plus/DESFire®/NFC⁽¹⁾



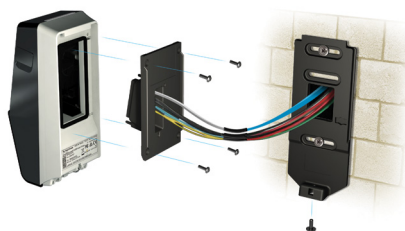
Adjustable attachment to axis or to either side of axis

Built for the real World

TOUGH DESIGN⁽²⁾



EASY INSTALLATION AND MAINTENANCE



COMPATIBLE WITH EXISTING INSTALLATIONS

Morpho
and
bioscrypt®

- Using MorphoManager by IDEMIA or MIK SDK on a Morpho network
- Using SecureAdmin application or SecureSDK on a Bioscrypt network

⁽¹⁾ NFC support depends on the smartphone model used with the MA SIGMA Lite/Lite+ device

⁽²⁾ IK08 rating is not available for MA SIGMA Lite+ design



MA SIGMA Lite+

With 2.8" QVGA color touchscreen and buzzer



S
T
R
S O
L N S S
S I G M A = THE RIGHT COMBINATION
L M A F
E R E
E T
K

Enhanced interactivity on MA SIGMA Lite+ touchscreen

- Time & Attendance In & Out function keys
- User ID, PIN and BioPIN⁽³⁾ management
- Intuitive icons and live messages

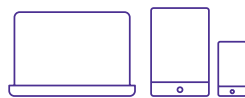
Anti-fraud features

- Fake finger detection
- Duress finger
- Timed anti-pass back function⁽⁴⁾
- Banned/authorized user lists

Embedded web server



Enables on-device enrollment, terminal configuration and transaction log retrieval



Use with any device (PC, laptop, tablet, smartphone)



Use with any OS (Apple iOS, Android, Windows)



Use with any web browser (Google Chrome, Mozilla Firefox, Safari, Internet Explorer)

⁽³⁾ Alternate password solution instead of fingerprints

⁽⁴⁾ Prevents repeated authorizations by the same user, within a configurable time period

Technical specifications

- **CPU:** ARM® Cortex™-A9 core 1GHz
- **Linux Operating System**
- **FBI PIV IQS certified optical fingerprint sensor**
- **Contactless reader options:** Prox®, iClass®, MIFARE®/MIFARE® Plus/ DESFire®/NFC⁽¹⁾
- **Network/Communication:**
 - Ethernet, RS485, USB
 - Wi-Fi option
- **Power supply:**
 - 12V-24V DC
 - Power over Ethernet (PoE), compatible with PoE+ switches
- **Internal storage capacity:** 512MB Flash, 512MB RAM
 - 500 user records, extendable to 3,000 or 10,000 with license (*3 templates each, including 1 duress)
 - 250,000 IDs in authorized user list
 - 1 Million transaction logs
- **Inputs/outputs:** Wiegand In & Out (customizable up to 512 bits), OSDP, Door Relay, 2 General Purpose Inputs (including Door monitoring), 2 General Purpose Outputs
- **Tamper switches**
- **Operating conditions:**
 - Temperature: -20°C to 55°C (-4°F to 131°F)
 - Humidity: 10% to 80% (non condensing)
- **Ingress protection:** IP65
- **Mechanical impact protection:** IK08⁽²⁾
- **HxWxD =** 156*68*62 mm (6.14*2.68*2.44 inches)
- **Weight:** 280 grams
- **EMC/Safety standards:**
 - CE, CB, FCC, BIS
 - UL294 (for indoor use only)
- **RoHS, REACH and WEEE compliant**



THE SIGMA FAMILY

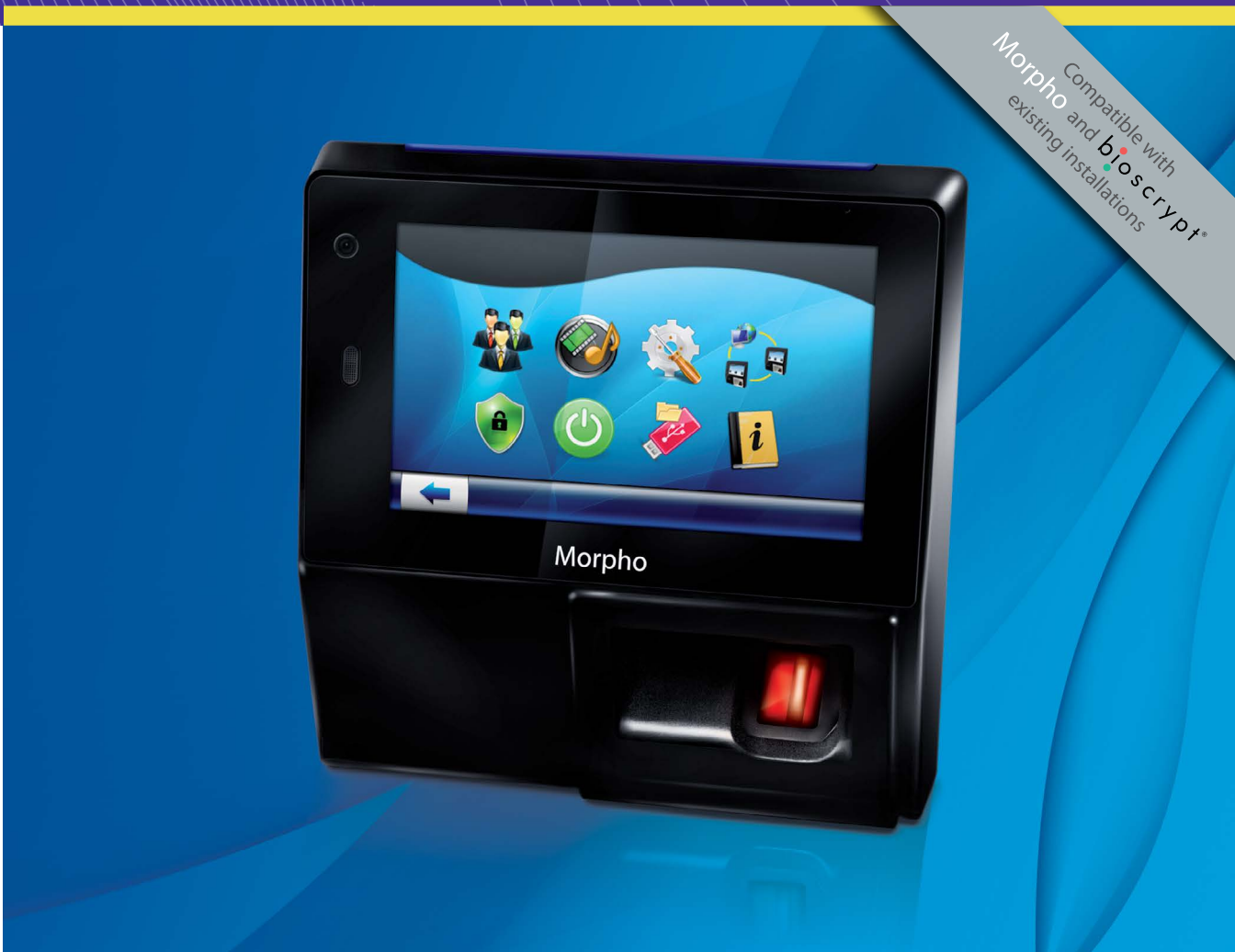
⁽¹⁾ NFC support depends on the smartphone model used with the MA SIGMA Lite/Lite+ device

⁽²⁾ IK08 rating is not available for MA SIGMA Lite+ design

MorphoAccess[®] SIGMA Series BY IDEMIA



Access Control and Time & Attendance fingerprint station



Compatible with
Morpho and bioscrypt[®]
existing installations

STILL THE WORLD'S BEST IN BIOMETRICS... AND SO MUCH MORE!



- Time & Attendance features
- Tablet-like user experience
- Videophone function
- Full set of contactless technologies including NFC
- Anti-fraud: fake finger & face detection, duress finger
- IP65 rated design

... and fast 1:100,000 identification!



Awarded Best Biometric Product by the Security Industry Association, Morpho and Bioscrypt successfully joined forces to design the best of breed fingerprint identification terminal.

Tailored for both Access Control and Time & Attendance applications, the MorphoAccess® SIGMA (MA SIGMA) Series by IDEMIA implements no fewer than 20 patents to master biometric identification and deliver a host of additional features, together with a refined and enjoyable user experience.



ULTRA-SECURE

The World's most accurate fingerprint technology is further enhanced with additional anti-fraud and anti-"buddy punching" features:

- Face detection and picture logging
- Fake finger detection
- Duress finger
- Banned/authorized user lists

FRESH, INTUITIVE, FLEXIBLE USER INTERFACE

The MA SIGMA Series by IDEMIA implements the design cues from today's most intuitive consumer electronics, for fast user adoption:

- 5" WVGA color touchscreen highlighting a sophisticated Graphic User Interface
- Seamless on-device administration
- Extensive customization capabilities: use your own content! (corporate video, audio messages, wallpapers etc.)

TIME & ATTENDANCE READY

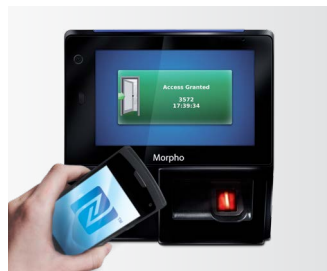
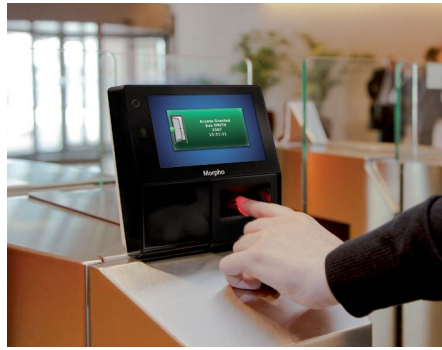
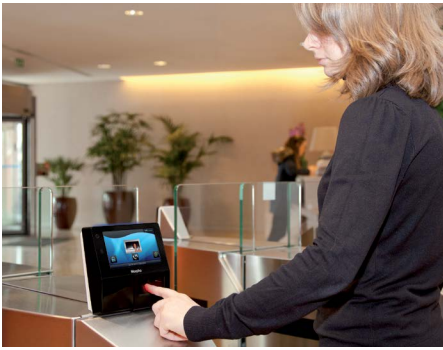
Increase your workforce management efficiency with:

- Touchscreen Time Clock, featuring 16 programmable function keys
- Access time slots and holidays scheduling
- Accurate punch records (up to 1 Million logs storage capacity)
- Real-time employee notifications
- Job Code management

VIDEOPHONE FUNCTION

- Built-in camera, speaker and microphone
- Standard IP-based video and audio interface
- Use cases:
 - Call-in function: employees can quickly report a problem right from the Time Clock
 - Surveillance: the terminal can be used by security staff to get pictures remotely from the security post





WORLD #1 FINGERPRINT TECHNOLOGY INSIDE

- Morphi fingerprint technology ranked #1 by NIST for accuracy
- Genuine 1:100K matching⁽¹⁾: World first in the industry
- 1:100K identification in less than 1 second (for frequent users)
- Exclusive optimizations tailored for access control
- Accuracy maintained regardless of number of users
- FBI PIV IQS certified optical sensor

MULTIPLE RECOGNITION FACTORS

- NFC⁽²⁾ technology support
- Full set of contactless smartcard options: Prox®, iClass®, MIFARE®, MIFARE® Plus, DESFire®
- PIN and BioPIN⁽³⁾ codes

EASY SET-UP AND MAINTENANCE

- Built for the real World and designed to save time at installation and reduce maintenance costs:
- Flush mounted “quick-tilt” access
 - No need for extra-cable wiring: connectors are directly pluggable on rear side
 - On-device or remote IP-based set-up
 - Secure USB port located on the side of the product

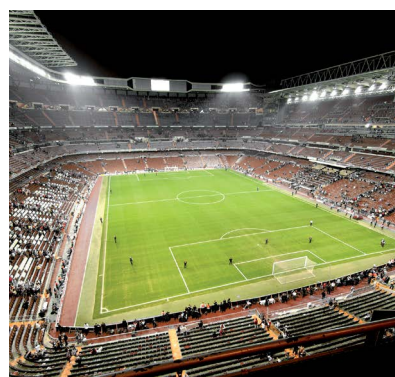
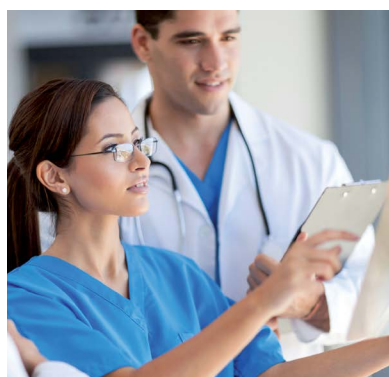
COMPATIBLE WITH EXISTING INSTALLATIONS

- Upgrade or complement your installation with MorphiAccess® SIGMA devices by IDEMIA using:
- MorphiManager by IDEMIA or MIK SDK on a Morphi network
 - SecureAdmin application or SecureSDK on a Bioscript network

⁽¹⁾ Search carried out against single 100K user database

⁽²⁾ NFC: Near Field Communication. Support depends on the smartphone model used with the MA SIGMA

⁽³⁾ BioPIN: alternate password solution instead of fingerprints



Technical specifications

- **CPU:** ARM® Cortex™-A9 core 1GHz
- **Linux Operating System**
- **5" WVGA color Touchscreen, VGA Camera**
- **Loudspeaker & Microphone**
- **Audio & Video player**
- **FBI PIV IQS certified optical fingerprint sensor**
- **Contactless reader options:** Prox®, iClass®, MIFARE®/MIFARE® Plus/ DESFire®/NFC[®]
- **Network/Communication:** Ethernet, RS485, RS422, USB Wi-Fi and 3G options
- **Internal storage capacity:** 512MB Flash, 512MB RAM + 8GB microSD Card
 - 5000 user records (2 fingers + 1 duress each), extendable up to 100,000 with licenses
 - 250,000 IDs in authorized user list
 - 1 Million transaction logs
 - 10,000 face picture logs
- **Inputs/outputs:** Wiegand In & Out (customizable up to 512 bits), OSDP, Door Relay, 3 GPI (including Door monitoring), 3 GPO
- **Power supply:** 12V-24V DC Power over Ethernet (PoE), compatible with PoE+ switches
- **Tamper switches**
- **Operating conditions:**
 - Temperature: -20°C to 60°C (-4°F to 140°F)
 - Humidity: 10% to 80% (non condensing)
- **Ingress Protection:** IP65
- **Compact with slim profile:** HxWxD = 153x151x58,5 mm (6x5,9x2,3 inches)
- **Ultra-light:** about 470 grams (depends on variant)
- **EMC/Safety standards:**
 - CE, CB, FCC, BIS
 - UL294 (for indoor use only)
- **RoHS, REACH and WEEE compliant**



THE SIGMA FAMILY

MorphoAccess[®] SIGMA

Extreme Series BY IDEMIA



Access & Time fingerprint terminal
for harsh operating conditions



Compatible with
Morpho and bioscrypt[®]
existing installations

Withstands strong impacts and resists to vandalism (IK09 rated)

Impermeable to dust and water (IP65 sealed enclosure)

300,000 templates, 250,000 IDs in authorized user list, 1 Million logs

Fake finger and face detection, duress finger, timed anti-pass back

Time & Attendance and videophone functions

Embedded web server

Prox[®], iClass[®] or MIFARE[®]/DESFire[®]/NFC contactless card reader as an option

Robust in all aspects



The MA SIGMA Extreme, including its large capacitive touchscreen, is resistant to vandalism and can withstand the impact of a 500g (1 lb.) steel ball dropped from a height of 2 meters (6.5 ft.).



The product enclosure, front and rear, is sealed and impermeable to dust and water.



TOUGH HOUSING

- Polycarbonate (PC) strong plastics
- Minimum thickness of 3.5 mm (0.14 in.)
- Resistant to UV and weathering (UL 746C f1 rated)
- Dirt-repellent grained texture

TEMPERED GLASS

- 3.8 mm (0.15 in.) thick

ENHANCED MAN MACHINE INTERFACE

- Very bright capacitive touchscreen, equipped with an ambient light sensor that automatically adjusts the display illumination
- Powerful loudspeaker suited to noisy environments

FIELD-PROVEN SENSOR

- Largest single fingerprint optical sensor on the market (23x23 mm)
- FBI PIV IQS certified
- Widely deployed in harsh environments (mines, seaports, etc.)



METICULOUS SEALING

- Screwed, sealed back panel protects electronics
- Fixed cable glands protect wiring

STURDY WALL MOUNTING

- Thick wall plate (3.5 to 11.4 mm / 0.14 to 0.45 in.), fixed with 6 peripheral screws (recommended, also compatible with standard electrical boxes)
- Ingenious, symmetrical lift-and-rotate opening mechanism enables easy in place maintenance
- 4 lateral hanging pins + 2 bottom fastening screws
- Withstands a load > 50 kg (110 lb.) vertically and horizontally

For demanding environments



MANUFACTURING SITES

MINES

OIL & GAS

POWER PLANTS

CONSTRUCTION SITES



RAILROAD INDUSTRY

AIRPORTS

SEAPORTS

SPORT ARENAS

CAMPUSES



THE SIGMA FAMILY

Rugged and powerful, the MorphoAccess® SIGMA Extreme by IDEMIA is a remarkable addition to the SIGMA Family of fingerprint readers.

Based on the same platform as other SIGMA devices, the outdoor MA SIGMA Extreme is specifically designed to operate in difficult environments (dust, salt mist, tough manual workplaces, etc.) and in harsh weather conditions.

With the entire SIGMA Family, integrators have a complete range of biometric terminals at their disposal, compatible with each other, to secure any kind of use case scenario – whether indoors or outdoors – with the World's most accurate fingerprint technology.

Key features



World #1 fingerprint technology

- Morpho fingerprint technology ranked #1 by NIST for accuracy
- Extendable identification capacity: 1:5K (default), 1:10K, 1:50K or 1:100K users, with genuine matching⁽¹⁾
- 1:100K identification in less than 1 second (for frequent users)
- Accuracy maintained regardless of number of users



Anti-fraud features

- Patented, BSI⁽²⁾ certified electro-optical Fake Finger Detection technology (option)
- Face detection and picture logging
- Duress finger option
- Timed anti-pass back function⁽³⁾
- Banned/authorized user lists
- Tamper switches



Time & attendance functions

- Touchscreen Time Clock, featuring 16 programmable function keys
- Access time slots and holidays scheduling
- Accurate clock in/out records (up to 1 Million logs storage capacity)
- Real-time employee notifications
- Job Code management



Videophone

- Built-in camera, speaker and microphone
- Standard IP-based audio/video interface
- Use cases:
 - Call-in function: e.g. employees can quickly report a problem right from the Time Clock
 - Surveillance: the terminal can be used by security staff to get pictures remotely from the security post



Embedded web server

- After connection (via Ethernet or optional Wi-Fi) to a laptop, tablet or smartphone, it enables administrator to:
- Trigger on-device enrollment (enrollment on product touchscreen is also available)
 - Configure product (full settings)
 - Get transaction logs



Flexible architecture

- Prox®, iClass® or MIFARE®/DESFire®/NFC⁽⁴⁾ contactless card reader as an option
- Various software integration options:
 - ILV or Thrift commands at low protocol level
 - Morpho Integrator's Kit (MIK) by IDEMIA or SecureSDK at SDK component level
 - MorphoManager by IDEMIA or SecureAdmin at application level

⁽¹⁾ Search carried out against a single database

⁽²⁾ Bundesamt für Sicherheit in der Informationstechnik (German Federal Agency for the Security of Information Technologies)

⁽³⁾ Prevents repeated authorizations by the same user, within a configurable time period

⁽⁴⁾ NFC support depends on the model/settings of the smartphone used with the MA SIGMA Extreme device

Technical specifications

- **CPU:** ARM® Cortex™-A9 core 1GHz
- **5" WVGA color capacitive touchscreen with ambient light sensor**
- **Front camera for face picture capture and videophone**
- **Loudspeaker & microphone**
- **Audio & video player**
- **FBI PIV IQS certified optical fingerprint sensor**
- **Contactless reader options:**
 - Prox®
 - iClass®
 - MIFARE®/MIFARE® Plus/DESFire®/NFC⁽¹⁾
- **Internal storage capacity:** 512MB Flash, 1GB RAM + 8GB microSD Card
 - 5000 user records (2 fingers + 1 duress each), extendable up to 100,000 with licenses
 - 250,000 IDs in authorized user list
 - 1 Million transaction logs
 - 10,000 face picture logs
- **Network/Communication:**
 - Ethernet, RS485, RS422, USB
 - Wi-Fi option
- **Inputs/outputs:** Wiegand In & Out (customizable up to 512 bits), OSDP, Door Relay, 3 GPI (including Door monitoring), 3 GPO
- **Power supply:** 12 to 24 V DC (1A min @12V) Power over Ethernet (PoE) – Compatible with PoE+ switches
- **Tamper switches**
- **Operating conditions:**
 - Temperature: -20°C to 60°C (-4°F to 140°F)
 - Humidity: 10% to 95% (non condensing)
- **Ingress protection:** IP65
- **Mechanical impact protection:** IK09
- **HxWxD =** 301*142*97 mm (11.85*5.59*3.82 in.)
- **Weight:** ~1.6kg (~3.5 lb.)
- **EMC/Safety standards:** CE, CB, FCC
- **RoHS, REACH and WEEE compliant**

⁽¹⁾ NFC support depends on the model/settings of the smartphone used with the MA SIGMA Extreme device

MorphoAccess[®] SIGMA

Extreme TWIC BY IDEMIA



Connected
Objects

Access control fingerprint reader meeting TWIC requirements,
for harsh operating conditions



Supports TWIC operating
modes for all MARSEC Levels

TWIC card authentication
capabilities using TWIC Privacy
Keys (TPK), PIV, CHUID, CAK

Supported by HID pivClass
(FASC-N) and Identity One
TWIC Link (TWIC Card S/N)

FBI certified fingerprint sensor
FIPS 201 approved template
generator and matcher

Withstands strong impacts and
resists to vandalism (IK09 rated)

Impermeable to dust and
water (IP65 sealed enclosure)

Rugged and powerful, the MorphoAccess® SIGMA Extreme TWIC (or MA SIGMA Extreme TWIC) by IDEMIA sets benchmarks for performance and versatility in difficult environments and harsh weather conditions. This fully integrated biometric terminal is completely self-contained, it does not require any additional housing for outdoor use. The MA SIGMA Extreme TWIC firmware is designed to execute TWIC workflow, as defined in the TSA TWIC Reader specifications in a physical access environment. It is capable of using the TWIC Privacy Keys from the card to decrypt the encrypted biometric data read from the contactless interface.



The terminal's high performance results from its ARM® Cortex™-A9 core powerful processor - running best-in-class fingerprint algorithms - and its FBI PIV IQS approved biometric sensor.

The MA SIGMA Extreme TWIC utilizes FIPS 201 certified algorithms for template generation and matching. This provides end-users better performance in terms of throughput and reduced false rejection rates in day-to-day access to gates and doors.

The MA SIGMA Extreme TWIC reader is the product of 40 years of continuous improvement measures, which include engineered improvements to both the biometric sensor and algorithms:

- Correction of finger rotation,
- Identification, filtering and repair of false minutae points (dirt, grease, scars, wrinkles, cuts, foreign objects),
- Identification and filtering of latent prints that build up on the biometric sensor.

The **Transportation Worker Identification Credential**, also known as TWIC, is required by the Maritime Transportation Security Act for workers who need access to secure areas of the U.S. maritime facilities and vessels. TSA conducts a security threat assessment (background check) to determine a person's eligibility and issues the credential. U.S. citizens and immigrants in certain immigration categories may apply for the credential. Most mariners licensed by the U.S. Coast Guard also require a credential.

Technical specifications

- **CPU:** ARM® Cortex™-A9 core 1GHz
- **TWIC compliant firmware**
- **5" WVGA color capacitive touchscreen with ambient light sensor**
- **Camera**
 - Face detection and picture logging
 - Videophone function (standard IP based interface)
- **FBI PIV IQS certified optical fingerprint sensor**
- **Loudspeaker & microphone**
- **Audio & video player**
 - Can play a tutorial video about TWIC mode
- **ISO 14443 compliant contactless reader**
- **Decryption with TPK**
- **Active card authentication**
- **Network/Communication:**
 - Ethernet, RS485, RS422, USB
 - Wi-Fi option
- **Internal storage capacity:** 512MB Flash, 1GB RAM + 8GB microSD Card
 - 5000 user records (2 fingers + 1 duress each), extendable up to 100,000 with licenses
 - 250,000 IDs in authorized user list
 - 1 Million transaction logs
 - 10,000 face picture logs
- **Inputs/outputs:** Wiegand In & Out (customizable up to 512 bits), Door Relay, 3 GPI (including Door monitoring), 3 GPO
- **Tamper switches**
- **Power supply:**
 - 12 to 24 V DC (1A min @12V)
 - Power over Ethernet (PoE) – Compatible with PoE+ switches
- **Operating conditions:**
 - Temperature: -20°C to 60°C (-4°F to 140°F)
 - Humidity: 10% to 95% (non condensing)
- **Ingress protection:** IP65
- **Mechanical impact protection:** IK09
- **HxWxD = 301*142*97 mm (11.85*5.59*3.82 in.)**
- **Weight:** ~1.6kg (~3.5 lb.)
- **EMC/Safety standards:** CE, CB, FCC
- **RoHS, REACH and WEEE compliant**