

# SIGMA Datasheet



SIGMA Lite



SIGMA Lite+



SIGMA Wide



SIGMA Extreme

<b>Processor</b>	ARM Cortex-A9 core 1GHz			
<b>Operating system</b>	Linux Based			
<b>Display</b>	No	2.8" QVGA color capacitive touchscreen	5" WVGA color resistive touchscreen	5" WVGA color capacitive touchscreen
<b>Camera</b>	No	No	Yes	Yes
<b>Audio</b>	Buzzer	Buzzer	Loudspeaker microphone	Powerfull loudspeaker Microphone
<b>Audio &amp; Video Player</b>	No	No	Yes	Yes
<b>VideoPhone</b>	No	No	Yes	Yes
<b>Time &amp; Attendance functions</b>	No	In & Out function keys	Up to 16 programmable function keys Real-time employee notifications Job Code management	
<b>Access control modes</b>	Identification (search for fingerprint in a local database) Authentication with contactless smartcard, with or without fingerprint check Multi-factor: identification or authentication Distant: the access control check is fully driven by a remote system			
<b>Fingerprint sensor</b>	CBM type, 14*22mm Optical technology 500dpi, 256 gray levels FBI PIV IQS image quality		MSO type, 23*23mm Optical technology 500dpi, 256 gray levels FBI PIV IQS image quality	
<b>Templates</b>	IDEMIA / ANSI 378 / ISO 19794-2 / MINEX / DIN v66400			
<b>User record capacity</b>	500, extendable to 3K or 10K (*3 templates each, including 1 duress)		5K, extendable to 10K, 50K or 100K (*3 templates each, including 1 duress)	
<b>Fake finger detection</b>	Statistical images comparison		Patented electro-optical, Common Criteria certified (Activation by licence)	
<b>Data Protection</b>	AES-256 database Encryption			
<b>GDPR</b>	GDPR-ready. GDPR Recommendations must be applied			
<b>Duress finger</b>	Included, a fingerprint may be chosen to generate a specific event, to trigger an alarm for example			
<b>Anti-pass Back</b>	Included, the user who has successfully passed the access control is rejected if the same user presents again on the same terminal within a configurable lap of time.			
<b>Tamper protection</b>	Magnetic switch		Mechanical switch	Magnetic switch
<b>Face detection</b>	No	No	Yes	Yes
<b>Face picture log capacity</b>	-	-	10 000 pictures	10 000 pictures
<b>Card reader options</b>	<ul style="list-style-type: none"> <li>- <b>Prox variants:</b> HID Prox 125 KHz, whatever the format (26, 37, etc.)</li> <li>- <b>iClass variants:</b> all HID iClass cards (incl. iClass legacy, iClass SR, iClass SE, Iclass SEOS)</li> <li>- <b>MD variants:</b> MIFARE Classic 1KB/4KB (4b &amp; 7b UID), MIFARE Plus EV0, DESFire 3DES legacy 2K/4K/8K (EV0, EV1, EV2), DESFire AES 2K/4K/8K (EV1 &amp; EV2), SmartMX</li> </ul>			
<b>PIN/BioPiN codes</b>	No	Yes	Yes	Yes
<b>Memory</b>	512MB Flash 512MB RAM		512MB Flash 512MB RAM 8GB microSD Card	512MB Flash 1GB RAM 8GB microSD Card
<b>IDs in authorized user list</b>	250 000 Users			
<b>Transaction log capacity</b>	1 Million			



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<b>Admin Mode</b>	Screen menu (except SIGMA Lite), Webserver, MBTB MorphoManager, Thrid party (Thrift/MACI SDK)			
<b>Ethernet</b>	Ethernet 10/100 Base T (MDI, MDI-X) TCP, SSL, TLS 1.2 protocols available			
<b>Wi-Fi</b>	Option with USB dongle : WEP, WPA (PSK), WPA2 (PSK) encryption available			
<b>Serial port</b>	Wiegand In & Out (customizable up to 512 bits) Dataclock - ISO2 OSDP V1 and V2 (Secure Channel AES-128 Encrypted) - RS485			
<b>GPIO</b>	2 GPI, 2 GPO Single Door Access Control Included		3 GPI, 3 GPO Single Door Access Control Included	
<b>Output relay switches</b>	Access granted: 1 switch 2 outputs (normally "open" & normally "closed")		Access granted: 1 switch (normally "open")	Access granted: 1 switch, 2 outputs (normally "open" & normally "closed")
<b>USB (Maintenance)</b>	1 external port for terminal configuration via a USB stick			
<b>Input signals</b>	LED1/LED2 to get access control panel feedback			
<b>Power supply</b>	12 to 24 V DC power supply (1A min @12V) or by PoE (Power over Ethernet) through RJ45 connector (compatible with PoE+ switches)			
<b>Operating conditions</b>	Temperature: -20°C to 55°C (-4°F to 131°F) Humidity: 10% < RH < 80% (non condensing)		Temperature: -20°C to 60°C (-4°F to 140°F) Humidity: 10% < RH < 80% (non condensing)	Temperature: -20°C to 60°C (-4°F to 140°F) Humidity: 10% < RH < 95% (non condensing)
<b>Storage conditions</b>	Temperature: -25°C to 70°C (-13°F to 158°F) Humidity: 5% < RH < 95%			
<b>Ingress protection</b>	IP65 (by design)		IP65 (once wall-mounted)	IP65 (by design)
<b>Mechanical impact protection</b>	IK08	Not specified	Not specified	IK09
<b>Dimensions (HxWxD)</b>	156 x 68 x 62 mm (6.14 x 2.68 x 2.44 inches)		153 x 151 x 58.5 mm (6 x 5.9 x 2.3 in.)	301 x 142 x 97 mm (11.85 x 5.59 x 3.82 in.)
<b>Weight</b>	280g (0.62 lb.)		~470g (~1 lb.) (depends on variant)	~1.6kg (~3.5 lb.)
<b>EMC/Safety standards</b>	- CE, CB, FCC - UL294 (for indoor use only) - BIS, ICASA, IC, RCM			
<b>Environmental certifications</b>	RoHS, REACH, WEEE, California Proposition 65			
<b>Regulatory number</b>	MPH-AC001	MPH-AC001	MPH-AC003	MPH-AC002

**Model numbers for embedded RFID readers**

Name of Product :	MorphoAccess SIGMA Lite	MorphoAccess SIGMA Lite+	MorphoAccess SIGMA WR	MorphoAccess SIGMA Extreme FFD
Fingerprint only (BIO)	293678615	-	-	-
HID iClass cards	293678628	293673644	293638856	293701729
MIFARE DESfire	293678636	293678660	293638877	293701737
HID Prox 125 KHz	293673665	293678678	-	293701740

Specifications and information subject to change without notice. The products described in this document are subject to continuous development and improvement.