OmniAC Series - OmniAC30

All Weather Outdoor Multi-tech Smart Standalone Terminal

- Multi-Biometric technology combining palm and face recognition
- IP66 water & dustproof protection rating
- Supports 125 kHz and 13.56 MHz frequency credentials
- Supports multiple mount types (Single gang/ European/ Asian box)

Modern Aesthetic Design

The build of the OmniAC30 blends a high-quality metal enclosure with a tempered glass panel. The elegant design fits perfectly into any usage scenario and its sleek design brings a practical and reliable experience to users.

IP66 Water & Dustproof Protection Rating

Certified IP66 water & dustproof levels represent that the readers can withstand dust, dirt, sand, and are resistant to violent surf impact or strong winds and rain.

Advanced Security

Secure communication: OSDP(V2.1.7) over RS-485 communication between the OmniAC30 and access control panels. Using AES-128 encryption standards ensures the highest levels of data protection & security.

Supports Multi-Card Types

Supports 125 kHz and 13.56 MHz frequency credentials. Supports various card types including EM, IC Card, HID Prox, HID iCLASS, DESFire and FeliCa.

Multi-Factor Authentication Capability

Offering credential options of palm, face, physical cards and QR codes.
*IC Card, Desfire, HID Prox, iClass, SEOS, etc.
*Integrate advanced multiple biometric recognition methods such as palm and face.
*QR code scanning for visitors & employees.
*PIN code option.

Video Intercom（Coming Soon）

The OmniAC30 supports video intercom function suitable for most visitor scenarios. Two-way audio streaming with echo and noise cancellation lets you easily communicate with visitors.

Installation Made Easy

Robust design & form factor makes this device easy to install. PoE option allows for minimal use of cabling and lowers the cost of installation. OmniAC30 supports multiple mount types (Single gang/ European/ Asian box) to meet most scenarios worldwide. Mounting accessories for speed gates are also available.

Industry-Leading Design and User Experience

The OmniAC30 provides an improved user experience with a 5“ high resolution touchscreen and intuitive UI design. Using our advanced algorithms, users can get the best verification experience.
Palm recognition distance: 7" - 15.7" (18cm - 40cm)
Face recognition distance: 15.7"- 47.2" (40cm - 120cm)

Variable Input Voltage

The device is compatible with 9V-24V input voltages.

Outdoor Rated for Variable Environments

IP66 Weatherproof rating - built to withstand freezing cold winters, heavy rains and dry/hot summers.
5°F -131°F (-15°C to 55°C) operating temperature enables operation even under the most severe weather conditions.

Unrivaled Palm and Face Recognition Performance

ARMATURA’s Multi-Biometric technology combines palm and face recognition with our unique deep learning algorithm to give users an efficient authentication experience.
Industry-leading combination of visible and NIR infrared recognition technology provides exceptional authentication accuracy and the industry's top-notch anti-spoofing protection.

Touchless Solution for New standards of the Post-pandemic World

The OmniAC30 meets the needs of the contactless world with features like remote user enrollment, palm, mask detection and face recognition for users with or without masks. Our Palm/ Face/ Card/ QR code recognition technology supports contactless authentication.

Better Images, Faster Recognition

This device supports palm/ face tracking, which can more intelligently capture the user's biometrics and avoid the user's biometric from continuing to be compared after verifying. At the same time, the palm/ face Automatic Exposure function enables the device to obtain higher quality images which improves the recognition accuracy.

Sleep-and-Wake Mode

The function enables activation of face recognition camera upon detection of face, in case always-on face recognition is not needed, which reduces the heat generated by the always-on face recognition of the camera for better protection and performance of the device.

Dimensions

General Information

Primary Power	DC 9V@4A-24V@1.5A（3Amin @12V）, Power Max. 10W
PoE	Supported IEEE802.3at/af compliant power: Max.12W
RS-485 connection	Port 1: RS-485 standard/ OSDP V2.1.7
CPU	1.2GHZ Quad Core ARM Processor
NPU	2.4 TOPs NPU
Memory	1GB RAM+ 8GB Flash
Camera	Face Automatic Exposure Palm Automatic Exposure Face Tracking Palm Detection WDR HDR 50Hz to 60Hz Dual Camera Output image 720*960pixels
Primary Host Communication	Ethernet: 10/ 100 Mbps, auto MDI/ MDIX Complies with TLS 1.2 for end-to-end secure communication channel
Ethernet network connection	Port 1:10/ 100 Mbps, auto MDI/ MDIX
Data Protection	Complies with TLS 1.2 for end-to-end secure communication channel (Secured Communication between Standalone Terminal & Server) AES128 (Secured Communication between the Standalone Terminal & OSDP Readers & Access Control Panels)
Number of Ports	1*TCP/ IP 1*RS-485 Input: 4ch TTL Inputs Output: 1ch TTL Output 2 relays
Inputs	Wiegand in, Button, Sensor in, Aux Input
Outputs	Wiegand Output, 2 relays with dry contacts (Lock, Alarm)

Normally Open Contact Rating	5A @30Vdc resistive
Normally Closed Contact Rating	5A @30Vdc resistive
Tamper Switch	Magnetic tamper detection system
On-Board Monitor	Size: 5.0", Resolution: 720*1280
Audio Indicator	Internal speaker with adjustable intensity (Configurable on UI)
MIC	Supported
Video Phone	Coming Soon
User Capacity	100,000
RFID Card Capacity	100,000
Maximum RFID Card Number Length	Wiegand In & Out (up to 64 bits)
Face Capacity	50,000 (1:N)/ 100,000 (1:1)
Palm Capacity	5,000 (1:N)/ 100,000 (1:1)
RFID Reading Distance	13.56MHz & 125kHz: Up to 1.96"/ 50 mm (depending on environment and transponder)
Face Recognition Distance	15.7" - 55.1" (40cm - 140cm)
Face Recognition Posture Adaptability	Yaw ≤ 30°, Pitch ≤ 30°, Roll ≤45°
Face Recognition Accuracy	True Accept Rate (TAR)=99%, False Accept Rate(FAR)=0.01%
Face Recognition Mode	1:1, 1:N
Face Recognition Speed	< 100ms (Field Test Result)
Face Recognition Liveness Detection	Yes (Infrared-visible light mode, Infrared Light Mode)
Face Mask Detection	Yes
Palm Recognition Distance	7” -15.7” (18cm - 40cm)
Palm Recognition Posture Adaptability	Yaw ≤ 45°, Pitch ≤ 30°, Roll ≤ 90°, Bend ≤ 30°
Palm Recognition Accuracy	True Accept Rate(TAR)=98.7%, False Accept Rate(FAR)=0.01%
Palm Recognition Mode	1:1, 1:N
Palm Recognition Speed	< 140ms (Field Test Result)
Palm Recognition Liveness Detection	Yes (Infrared Light Mode)
Recommend Installation Height	55" (140cm) (Using the plate with tilt angle) 59" (150cm) (Plate with horizontal angle)
Transaction Buffer	Records: 1,000,000
Access group	99
On-Board Access Point Control	1 access point on board
On-Board Reader Support	1 (OSDP over RS-485) or 1 (Wiegand Input)
Protection / Resistance	Weather & Dust Proof Protection Rating compliant with IP66

RFID / Biometrics Reader Interface	
Input Voltage	DC 9V@4A-24V@1.5A (Equal to primary power input)
Maximum Input Current	DC 9V@4A-24V@1.5A (Equal to primary power input)
RS-485 Protocol	OSDP2.1.7 Secure Channel, AES-128
OSDP Mode	9600-115200 bps, OSDP V2.1.7, asynchronous, half-duplex, 1 start bit, 8 data bits, and1 stop bit.
Wiegand	Wiegand In & Out (Up to 64 bits)
Data Inputs	TCP/IP, RS-485, OSDP and Wiegand standards supported. Maximum RS-485/ OSDP cable length: 1970ft (600m) Maximum Wiegand cable length: 164ft (60m)

Cable Requirement	
Power & Relays	Twisted pair, 18 to 16 AWG
Ethernet	CAT-5E, Wire diameter (24AWG), maximum 330 ft. (100m) PoE : CAT-6A, Wire diameter (23AWG), maximum 330 ft. (100m)
RS-485 Reader Port	9600-115200 bps, asynchronous, half-duplex, 1 start bit, 8 data bits, and 1 stop bit. One twisted pair with drain wire and shield, 120 ohm resistance, 22-18 AWG, Maximum cable length: 1970ft (600m)
Wiegand Port	20 AWG shielded, 164ft (60m)

Mechanical	
Dimensions	3.82" W x 1.112" D x 8.23" H (97 x 28.5 x 209mm)
Weight	29.45oz (835g)
Mounting	Supports mounting plate installation (Single gang/ European/ Asian box) Supports rots-02 bracket
Housing Material	Aluminum alloy + Tempered glass

Environmental	
Operating & Storage Temperature	Operating Temp.: 5°F -131°F (-15°C to 55°C) Storage Temp. -13°F -149°F (-25°C to 65°C)
Operating Humidity	0 - 90% RH (Non-condensing)
Certification(s)	CE, FCC, RoHS

Software Interface	
TCP/IP Mode	Ethernet: 10 - 100Base-TX
TCP/IP Protocol	VLAN, SSH, HTTP, IPv4, DNS
TCP/IP Encryption	Complied up to TLS1.2 end to end secure communication channel
TCP/IP Communication	Push Protocol over HTTP, HTTPS
Supported Software	Armatura One Security System

ARMATURA RFID Card Module Supporting List

ArmaSec-13112023

		Card Module Abbreviation	[DF]	[SFMH]	[NO]	[NP]	[NI]	[NPL]	[NIH]	[RNP]	[RNI]
Frequency	Classification	Compatible Readers	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC/ EP30 Series	EP10C/ EP20C/ EP20CK/ EP20CQ/ EP20CKQ/ EP20ENC/ EP30 Series/ VG10CKQ*	EP10C/ EP20ENC	EP10C/ EP20ENC	EP10C/EP20CQ/ EP20CKQ/ EP20ENC	EP10C	EP10C	OmniAC20/ OmniAC30/ EP20CQ*/ EP20CKQ*/ VG10CKQ*	OmniAC20/ OmniAC30/ EP20CQ*/ EP20CKQ*/ VG10CKQ*
13.56MHz	ISO14443A	LEGIC Advant		√	√1)	√1)	√1)		√1)		
		MIFARE Classic, Mini S50,S70	√4)	√	√	√	√		√	√4)	√4)
		MIFARE Classic EV1	√4)	√2)	√2)	√2)	√2)		√2)	√4)	√4)
		MIFARE DESFire Light		√8)	√8)	√8)	√8)		√8)	√4)	√4)
		MIFARE DESFire EV1	√4)	√	√	√	√		√	√4)	√4)
		MIFARE DESFire EV2/ EV3	√4)	√13)	√13)	√13)	√13)		√13)	√4)	√4)
		MIFARE Plus S, X		√	√	√	√		√	√4)	√4)
		MIFARE Smart MX		√3)	√3)	√3)	√3)		√3)	√4)	√4)
		MIFARE Ultralight		√	√	√	√		√	√4)	√4)
		MIFARE Ultralight C		√	√	√	√		√	√4)	√4)
		MIFARE Ultralight EV1		√2)	√2)	√2)	√2)		√2)	√4)	√4)
		NFC (NTAG2xx)	√		√	√	√		√		
		SLE44R35		√3)	√3)	√3)	√3)		√3)		
		SLE66Rxx (my-d move)		√3)	√3)	√3)	√3)		√3)		
		Topaz			√	√	√		√		
		HID iCLASS SEOS					√20)		√20)		√20)
		NFC(HCE & NTAG2xx)		√	√	√	√		√		
	ISO14443B	Calypso		√3)	√3)	√3)	√3)		√3)		
		Calypso Innovatron protocol		√3)	√3)	√3)	√3)		√3)		
		CEPAS		√3)	√3)	√3)	√3)		√3)		
		CTS			√	√	√		√10)		
		Pico Pass		√1)	√4)	√4)	√4)		√4)		
		SRI4K, SRIX4K		√	√	√	√		√		
		SRI512, SRT512			√	√	√		√		
	ISO18092/ ECMA-340	Sony FeliCa		√5)	√5)	√5)	√5)		√5)	√1)	√1)
	ISO15693	EM4x33		√3)	√3)	√3)	√3)		√3)		
		EM4x35		√3)	√3)	√3)	√3)		√3)		
		HID iCLASS		√1)	√1)	√1)	√10)		√10)	√1)	√10)
		HID iCLASS SE/ SR/ Elite		√1)	√1)	√1)	√10)		√10)	√1)	√10)
		iCODE SLI		√	√	√	√		√		
		LEGIC Advant		√1)	√1)	√1)	√1)		√1)		
		M24LR16/64		√	√	√	√		√		
		MB89R118/119			√	√	√		√		
		SRF55Vxx (my-d vicinity)		√3)	√3)	√3)	√3)		√3)		
		Tag-it		√	√	√	√		√		
		Pico Pass		√1)	√4)	√4)	√4)		√4)		
		LEGIC Prime		√							
		CPU Card									

To be released

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125kHz		AWID			√	√	√	√			
		Cardax			√	√	√	√			
		CASI-RUSCO			√6)	√6)	√6)	√6)		√	√
		Deister			√6)	√6)	√6)	√6)			
		EM4100, 4102, 4200	√		√7)	√7)	√7)	√7)		√	√
		EM4050, 4150, 4450, 4550			√	√	√	√			
		EM4305			√	√	√	√			
		Ultra Prox			√	√	√	√			
		G-Prox				√6)	√6)	√6)			
		HID DuoProx II (1336)				√	√	√		√1)	√1)
		HID ISO Prox II (1386)				√	√	√		√1)	√1)
		HID Micro Prox II (1391)				√	√	√		√1)	√1)
		HID Prox III (1346)				√	√	√		√1)	√1)
		HID Prox				√	√	√		√1)	√1)
		HID Prox II (1326)				√	√	√		√1)	√1)
		HITAG 1, 2, S			√9)	√9)	√9)	√9)			
		ICT			√8)	√8)	√8)	√8)			
		IDTECK			√	√	√	√			
		Indala				√	√	√			
		ioProx				√	√				
		ISONAS			√	√	√	√			
		Keri			√	√	√	√			
		Miro			√	√	√	√			
		Nedap			√6)	√6)	√6)	√6)			
		Nexwatch				√	√	√			
		Pyramid			√	√	√	√			
		Q5			√	√	√	√			
		T5557, T5567, T5577			√	√	√	√			
		TITAN (EM4050)			√	√	√	√			
		UNIQUE			√	√	√	√			
		ZODIAC			√	√	√	√			
	Availability	Globally Available		Y				Y	Y	Y	Y
		Globally Available Except for U.S., E.U., Japan, Australia, Canada, U.K., Albania, Iceland, Liechtenstein, Monaco, North Macedonia, Norway, San Marino, Serbia, Switzerland, Turkey, and the United Kingdom	Y		Y	Y	Y				

√) UID only, customization upon request for reading encryption content
1) UID only
2) Read/ write (customisation) enhanced security features on request
3) Read/ write (customisation) in direct chip command mode
4) UID only, read/ write (customisation) on request
5) UID + read/ write (customisation) public area
6) Hash value only
7) Only emulation of 4100, 4102
8) On request
9) Without encryption
10) UID + PAC (CSN & Facility Code), read/ write(customisation) on request
11) In preparation
13) EV2/ EV3 supported as part of the EV1 downward compatibility
14) From FW V4.05
15) 134.2 kHz only
20) PAC (CSN & Facility Code), read/ write (customisation) on request

ARMATURA

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