

# BioStation 2a

Feel the Power of AI



BioStation 2a represents a significant step in the evolution of security technology. It introduces deep learning into fingerprint recognition, enhancing access control with multiple credential options. The core innovation lies in its embedded AI processor, the NPU (Neural Processing Unit), finely tuned for deep learning, resulting in remarkable precision and speed in fingerprint recognition. Explore the future of security with BioStation 2a.

## The World's First AI Security Solution Offering Unparalleled Security

### The World's First Deep-Learning Processor Adopted

BioStation 2a is powered by an AI processor, the NPU (Neural Processing Unit). This ensures lightning-fast and precise fingerprint recognition, setting new standards for security solutions for the first time in the world.

### Over 30% Improvement in Fingerprint Recognition

Through deep learning, the accuracy of fingerprint recognition is increased extensively. The ability to extract templates from low-quality fingerprints, such as those that are noisy or distorted, has significantly improved.

### x5 Higher Capacity : Up to 100,000 users

Increase the capacity by fivefold, from 20,000 to an impressive 100,000. Even with this substantial capacity expansion, BioStation 2a boasts enhanced speed, thanks to its upgraded Processor, now running at 1.5GHz, and the application of Neutral Processor Unit (NPU) technology.



## Specifications

Model Name	BS2A-ODPB	BS2A-OAPWB
RF Option	125kHz EM & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3, FeliCa	125kHz EM, HID Prox & 13.56MHz MIFARE, MIFARE Plus, DESFire, DESFire EV1/EV2/EV3, iCLASS SE/SR/Seos, FeliCa
RF Read Range <sup>1)</sup>	EM/MIFARE/DESFire/HID iCLASS: 50 mm, HID Prox/FeliCa: 30 mm	
Mobile	NFC, BLE	
Live Finger Detection	Supported (SW-based)	
CPU	1.5 GHz Quad Core	
Memory	16 GB Flash + 2 GB RAM	
Crypto Chip	Supported	
Max. User	500,000 <sup>2)</sup>	
Max. Credential (1:N)	Fingerprint: 100,000	
Max. Credential (1:1)	Fingerprint, Card, PIN: 500,000	
Max. Text Log	5,000,000	
LCD	2.8" color TFT LCD / 320 x 240 pixels	
Wi-Fi	Not Supported	Supported (802.11 b/g/n 2.4 GHz)
Ethernet	Supported (10/100 Mbps, auto MDI/MDI-X)	
RS-485	1 ch Master / Slave (Selectable)	
RS-485 Communication Protocol	OSDP V2 compliant	
Wiegand	1 ch Input, 1 ch Output	
Input	3 ch Inputs	
Relay	1 Relay	
USB	USB 2.0 (Host)	
Tamper	Supported	
Power	Voltage: 12 Vdc, Current: Max. 0.8 A Voltage: 24 Vdc, Current: Max. 0.4 A PoE: Supported (IEEE 802.3af compliant)	
IP Rating	IP65	
Operating Temperature	-20 °C ~ 60 °C (-4°F ~ 140°F)	
Dimensions (WxHxD)	142 x 144 x 45 (Bottom) / 37.8 (Top) (mm)	
Certification	CE, UKCA, KC, FCC, RCM, SIG, RoHS, REACH, WEEE	

<sup>1)</sup> RF read range will vary depending on installation environment.

<sup>2)</sup> The number of users registered without any credential data.

## Complete Access Control : Your Security, Your Way



### Multiple Credential

Offer fingerprint recognition, mobile access(NFC/BLE), and RFID card options making authentication easier.



### Customize Features

Enable integration and simple adding-on new features with an extended USB host.



### Large-scale Data Processing Capacity

Enable matching up to 100,000 fingerprint recognition template, and storing up to 5,000,000 logs.



### Versatile Environment Adaptation

Whether it's indoors or outdoors, BioStation 2a seamlessly adapts to any environment. It's IP65 rated and can operate in temperatures ranging from -20°C to 60°C, guaranteeing durability even in rugged conditions.



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