

# Fingerprint Identification(Camera Embedded) Time & Attendance/Access Controller

- MAC1000 : 125KHz (PSK Format/IDC Type) Proximity RF Card or PIN / Password / Fingerprint Recognition
- MAC1000SR : 13.56MHz (MIFARE, ISO14443 Type A Compatible) SMART Card or PIN / Password / Fingerprint Recognition



## System Features

- Fingerprint Controller Used with Video Image
- Windows CE Operating System Applied for Higher System Performance and Stability
- PoE (Power over Ethernet) Feature: Provides Ethernet Communication and Power Supply via Network Cable (CAT5)
- Visual Image or Video of Access Status
- Visual Image (640x480/JPEG): Up to 6,000 Images Storable
- Video (640x480/15 Frames per Sec.)  
: Stores up to 1000 Videos for 10 Sec. Duration
- Multi-Language (English, Korean and User Defined) and Voice Guide Support
- Data Transmission Using Encrypted Algorithm (3DES)
- Anti-Passback Function
- Arm/Disarm Function
- Duress Mode / 2 Men-Operation Function
- Alerts when Door Opening Time Exceeds and Forced Door Open
- Tamper Switch (2EA)
- Advanced Security Time Schedule Configuration
- Stores up to 5 Fingerprints per ID
- Configuration Setting per ID (Time Schedule, Card Usage Expiration Date, Accessible Reader, Door Opening Time, etc.)
- Allows Registration of 10 Administrator Using the Fingerprint
- 4-Status Input Check (On/Off/Short/Cut)
- Designed to Withstand ESD (Electro Static Discharge) Shock
- Firmware Upgrade via Remote Control
- Door Phone Function
- Supports 26/34 Bit Wiegand Output Port (Usable to Reader)
- Compatible Software: STARWATCH ENTERPRISE, STANDARD, TIME PRO, TIME BASIC, iDWATCH VIEW PRO

Model	MAC1000	MAC1000SR	
CPU	32 Bit ARM11 Processor		
OS	Microsoft Windows CE 6.0		
Memory	Program	256M Byte DDR SDRAM	
	Data	128M Byte Flash Memory	
	Video Storage	2G Byte	
Fingerprint Registration	10,000 ~ 25,000 Users		
User IDs / Event Buffers	100,000 Users (Including Fingerprint Registration) / 500,000 Events		
Fingerprint Template Size	500 Byte per Single Fingerprint		
Reading Range	IDC80, IDC170 : Up to 10cm	ISC80 : Up to 10cm	
Card Reading Time	30ms		
1:1 Verification/1:N Identification Time(Fingerprint)	Less than 1 Sec. / Less than 2 Sec.		
Power / Current	DC12V (or PoE) / Max. 800mA *PoE (IEEE802.3af compliant:12V/1A)		
External Reader Port	1 EA : 26 Bit Wiegand, 4/8 Bit Burst for PIN for Anti-Passback	1 EA : 34 Bit Wiegand, 4/8 Bit Burst for PIN for Anti-Passback	
Communication/Communication Speed	Ethernet / 10/100 Mbps		
Input Port	4 EA : Exit Button, Door Sensor, AUX #1, AUX #2,		
Output Port	2 EA : 2 FORM-C Relay Output (COM, NO, NC) / DC 12V ~ 18V, Rating Max. 2A		
	2 EA : TTL Output / DC5V, Rating Max. 20mA		
	1 EA : Video Signal for DVR		
	1 EA : 26 Bit Wiegand	1 EA : 34 Bit Wiegand	
USB Port	2 EA : USB 1.1 Support		
Camera / LCD	NTSC : CCD Color Board Camera (Total Pixel:410K) PAL : CCD Color Board Camera (Total Pixel:470K)/TFT Color(16.7M) LCD(320x240)		
Language LCD Display/Voice Output	English (Default), Korean, User-Defined / English (Default)		
Keypad/Operating Temperature	20 Numeric Keypad (Includes 4 Function Keys) / 0° ~ +50°C		
Operating Humidity	10% ~90% Relative Humidity Non-Condensing		
Color/Material/Dimension(WxHxT)	Black / Polycarbonate / 104 x 290 x 51.8mm		
Certification	FCC, CE, KCC, RoHS, UL		
<b>Fingerprint Module Specification</b>			
Resolution	500dpi		
Capture Image Size	640 x 480 pixels		
Extract Image Size	260 x 300 pixels		
Sensor Area	15 x 18.5mm		
Scanner	High Quality Optical Sensor		
ESD Tolerance	±8 KV		
FAR(False Acceptance Ratio)/FRR(False Reject Ratio)	0.001% / 0.1%		
<b>Time Schedule</b>			
Time Code	10	Holiday Code	10
Time Interval	5	Holiday	100