

1. DESCRIPTION OF SCHEMETICS

The Exiting coil generates high power 125KHz sinusoidal frequency and envelope detector of Proximity Reader detects encrypted data from the proximity card and decodes received data and generates 26 bit Wiegand signal if the received data matches its encryption code. 26 bit Wiegand signal enters into the interrupt routine of the Main CPU so that the read data from the Proximity Reader can be stored into the buffer of Main CPU at any time. The Main CPU receives the 26 bit Wiegand signal (Card ID number) from the proximity reader and confirms whether the ID number is registered, within the valid Time Schedule, Holiday Schedule and right sequence of Anti-pass Back. When the all flags are confirmed, the Main CPU sends the ID to the Fingerprint Module and turns on the fingerprint scanner to received the User's fingerprint and verify User's fingerprint. If the scanned fingerprint is matched correctly against the stored fingerprint data, then the Main CPU releases the door relay for the Door Open Time set for this user and saves this event to the event buffer. The keypad can be used for entering the PIN or Password. When an input signal is detected, for example, when the motion detect sensor is activated or an exit button is pressed, the controller generates and logs an appropriate response for the input signal. All event transaction data is stored into the data memory and to be sent to the host computer when the communication is established.

The TCP/IP communication port is connected to the Serial Interrupt of the Main CPU and continuously checks whether the host PC tries hand-shake with the device. When the host PC sends a command to the device, the command is received from the RXD port of the Main CPU, which then interprets the command and takes a corresponding action and sends a relative resulting command and event transaction data to the host PC through the TXD port of the Main CPU. For TCP/IP communication with the host PC, TCP/IP module (IIM7100A) has to be mounted onto the device. The SSA-S3040 has 24-key keypad (10 Numeric keys, 2 Control keys and 12 Function keys) and scans all signals from the Keypad every millisecond and generates corresponding outputs according to the configuration stored in the Data Memory and internal RTC (Real Time Clock) counts the exact output times set by user. The integrated keypad and LCD display can be used for the entire programming process, even without connection to a host PC. The internal Buzzer makes beep sounds when the keypad is pressed or a proximity card is read. The Red LED is a power indicator, and it is always on when the device is powered on. The Green LED is turned on while the door relay is activated. The Yellow LED is turned on while the alarm relay is activated. The 5V voltage regulators distribute necessary power to the Proximity Reader, Main CPU and other electronic circuitry.

Item		SSA-S3010	SSA-S3020	SSA-S3040	SSA-S3011	SSA-S3021	SSA-S3041
User	Total Users	10,000 / 20,000 Users (Selectable)					
	Fingerprint Users	1,000	2,000	4,000	1,000	2,000	4,000
Fingerprint Templates Size		800 Bytes for 2 fingerprint Templates					
Event Buffer		20,000 / 10,000 Event Buffers (Selectable)					
Power / Current		DC 12V 540mA			DC 12V 560mA		
Reader Port		1ea: 26bit Wiegand, 8bit Burst for PIN for Anti-Pass-Back			1ea: 34bit Wiegand, 8bit Burst for PIN for Anti-Pass-Back		
Reading Time (Card)		30ms					
Verification Time		Less than 1sec.					
Identification Time		Less than 2sec.					
Door Open Time		00~99 Sec. (Default 3Sec.)					
Communication		TCP/IP					
Baud Rate(bps)		9,600/ 19,200 / 38,400 / 57,600(selectable)					
Input Port		4ea : Exit Button, Door Sensor, Aux#1, Aux#2					
Output Port		2ea : 2 FORM-C Relay Output (COM, NO, NC) / DC12V~18V Rating Max.2A					
		1ea : TTL Output / DC5V, Rating MAX.20mA					
		1ea: 26bit Wiegand Output Supported by TTL Output			1ea : 34bit Wiegand Output Supported by TTL Output		
LED Indicator		3 LED Indicators (Red, Green and Yellow)					
Beeper		Piezo Buzzer					
LCD		Graphic LCD (128 x 64 dots), 72.5mm x 39.5mm (2.85" x 1.56") View area					
Keypad		24 key Numeric Keypad with Back Lighting (12 Function Key included)					
LCD Display (Language)		English, Spanish, Portugal, Korean (Selectable)					
Voice Output (Language)		English (Default)					
Operating Temperature		0°C to +50°C					
Operating Humidity		10% to 90% relative humidity non-condensing					
Color / Material		Silver with Black / Polycarbonate					
Dimension (W x H x D)		191.5 x 159.5 x 44.0 (mm)					
Weight		760g					
RF Specifications	Frequency	125KHz	125KHz	125KHz	13.5610 MHz	13.5610 MHz	13.5610 MHz
	Modulation	PSK	PSK	PSK	ASK	ASK	ASK
	No. of Channels	1CH	1CH	1CH	1CH	1CH	1CH
	Output	Less than 65.80dBuA/m at a distance of 10m	Less than 65.80dBuA/m at a distance of 10m	Less than 65.80dBuA/m at a distance of 10m	Less than 47.544 mV/m at a distance of 10m	Less than 47.544 mV/m at a distance of 10m	Less than 47.544 mV/m at a distance of 10m