# RELIABLE CELLULAR-LIKE TECHNOLOGY

Unique tree network for optimal coverage without interference from existing Wi-Fi networks

# EASY PLUG-AND-PLAY SYSTEM Self-networking system enables easy infrastructure setup

### EXCEPTIONAL READABILITY

High resolution e-paper display for 180° viewing

# LONG BATTERY LIFE & FAST UPDATES

Unique wireless protocol tuned to optimize the power consumption and network efficiency

ANTI-JAMMIMG FROM Wi-Fi 13,500 graphic tags are fully updated per hour

INTELLIGENT SYSTEM Acknowledges updates; battery level and signal strength notifications

# **ELSA-E** Electronic Shelf Labeling System

# Ultra-thin · Full graphic Autonomous system · Environmentally friendly







# **Technical Specification**



**Base Station** 

MODEL NAME: Base Sta	tion
INFRASTRUCTURE	
SIZE (W x H x T) mm	99 x 68 x 23
WÊIGHT, gm	指4
ANTÉNNÁ	External SMA type x 2
LED	Tri-Color / GREEN / Blue
NETWORK	
INTÉRFACE	WIRELESS
FREQUENCY	SUB-GHz ISM
OPERATION MODE	SELF-NETWORKING (AUTOMATIC CONNECTION BUILT-UP AND RECOVERY)
ENCRYPTION	AES 128-bit
TRANSMISSION RANGE	200 MÉTÉRS (LINÉ ÓF SIGHT)
OPERATING CONDITION	S
OPERATING TEMP/HUMIDITY	û ~ 70°C / 5 ~ 95% at 40℃(non-condensed)
STORAGE TEMP/HUMIDITY	0 ~ 70°C / 5 ~ 95% (non-condensed)
POWER	Poë / AC iniet
APPLICATIONS	Retail, Smart Display

# **Device Setup:**

#### Access Point Setting

The Base station has a wired connection to the ELSA software (computer) and communicates wirelessly with other base station (as RT mode) via the M2COMM proprietary protocol.

Since the base station operated as the AP mode in default, so user doesn't need to change the mode setting at this step.

Please refer to below procedure to setup your BS in Access Point mode.



Status Indicators and Assembly:

LED status:

Tri-Color (Mode Indicator): **Yellow** in AP mode Green (Power Indicator): ON when BS was power on Blue (Wireless Status Indicator): ON when AP is ready to communicate with RT



Green network activity indicator

#### Access Point - PoE Port:

GREEN network activity indicator—turns on when a cable connects the port to another Gigabit Ethernet port YELLOW activity indicator—Flashes to indicate network activity over that port



Attach included both Antennas



Plug one end of the supplied Cat 5E cable into the BS, the other end should be plugged into the PoE switch.

Once the BS had been powered on in AP mode, the tri-color LED will be shown "Yellow".

#### **Router Setting**

The Router(s) operate wirelessly, via the M2COMM proprietary protocol, with the Access Point.

Please refer to below procedure to setup the BS in Router mode.



Status Indicators and Assembly:

#### LED status functions:

Tri-Color (Mode Indicator): **Purple** in RT mode Green (Power Indicator): ON when BS was power on Blue (Wireless Status Indicator): ON when RT is ready to communicate with ED; flash slowly during connecting process



Attach included both Antennas



Adjust the rotary switch at right side, from "A"(AP) to "R"(RT)



Plug one end of the supplied Cat 5E cable into the BS, the other end should be plugged into the PSE.

Once the BS had been powered on in RT mode, the tri-color LED will be shown "Purple".

#### ELSA-E Demo System IP setting:

The ELSA-E demo system is designed to use dynamic IP address when Access Point was powered by PoE interface, or configure as static IP address when AC adapter used.

*IP Address Configuration (Static IP):* 

Ensure that your Access Point is connected to your computer.

The Access Point comes pre-configured with a default IP Address (192.168.2.1). It's necessary to modify the IP Address of the Ethernet port on your computer that is cabled to the M2COMM Access Point so that they can communicate with one another.

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	Change your networking settings		

Using your computer mouse, click on Ethernet

eneral		
Connection		
IPv4 Connecti	vity:	No network acces
IPv6 Connects	vity:	No network acces
Media State:		Enable
Duration:		01:14:1
Printer.		100.0 Mbp
Detais	]	
Details	]	
Details	Sent —	Receiver
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Select Properties



Select Internet Protocol Version 4 (TCP/IPv4), and select Properties

Internet Protocol Version 4 (TCP/	(IPv4) Properties X
General	
You can get IP settings assigned this capability. Otherwise, you ne for the appropriate IP settings.	automatically if your network supports eed to ask your network administrator
Obtain an P address auton	uetically 51
IP address:	192 - 168 - 2 - 100
Subnet mask:	255.255.255.0
Default gateway:	P. P. M
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(ii) Use the following DNS serve	r addresses:
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	OK Cancel

Check Use the following IP address and enter information shown above. Select OK to apply new settings

### IP Address Configuration (Dynamic IP):

For installations that contain multiple Access Points an external TCP/IP Ethernet hub is required. And please contact M2COMM for further details.

#### M2COMM ELSA-E Demo Installation:

Software Installation:

Put below two executable files into the same folder on your computer. And double-click the "**ELSA1.0\_2.7.8.678.exe**" file to begin the installation.

ELSA1.0\_2.7.8.678.exe

```
ELSA1.0_custom_dm_2.7.8.678 - 2.1.0b5 (3690).exe
```

You may be asked for permission to allow the program to make changes to your computer; you must agree to this to enable installation to start.

Follow the on-screen instructions to finish the installation process.



Click *Next>* to continue

icense Agreement	
Please read the following important information before o	Continuing.
Please read the following License Agreement. You must agreement before continuing with the installation.	accept the terms of this
ELSA Software Suite	*
	1
IMPORTANT - READ CAREFULLY:	
DO NOT INSTALL, COPY OR USE THE ENCLOSED SOFT	WARE, DOCUMENTATION
(AS DEFINED BELOW), OR ANY PORTION THEREOF, (C "SOFTWARE") UNTIL YOU HAVE CAREFULLY READ AND	OLLECTIVELY
FOLLOWING TERMS AND CONDITIONS.	
THIS IS A LEGAL AGREEMENT ("AGREEMENT") BETWEE	N YOU (EITHER AN +
I accept the agreement	
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### Select Accept, and Click Next> to continue

nformation	L
Please read the following important information before continu	<sup>ng.</sup>
When you are ready to continue with Setup, click Next.	
Version 2.7.8.678	*
Added more data to be sent to M2Cloud Various bugfixes	
Version 2.7.7 Various bugfixes	
Version 2.7.6	
- Add Japanese translation	
Version 2.7.5 [New] - Add new profile 0x0804	
l	*
(	

Click Next to continue



#### Click Install to start



Click Finish to complete the installation

The ELSA-E Demo system has now been installed and executed on your computer. The icon will be hidden inside the toolbar, and you should now be able to locate this icon on your computer screen, by right click.

Open in browser (M2COMM ELSA Software)

Show M2COMM ELSA Software console

Turn off M2COMM ELSA Software

And you can also launch the ELSA software by double click the icon on desktop.



#### Setting Up the AP and RT

Ensure that the Access Point is connected to your computer that the Router(s) is installed throughout your premises and are powered on.

• Install the AP



Input "*sa*" for user name and "*passw0rd*" for password, to access the ELSA web.

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5	D.24 Merchanten Wrond	
	Welcome to M2CDMM ELSA device installation witant. From have, pour can install new devices anto your ELSA optimit. Click start betwee when you are ready.	
	***** a pain word to import sciences (in the other that in the paints of the second	

Press "Start" to initial the ELSA system installation process.

npul your store	nome	
Store name:	M2COMM_certification	
	Submit	

Input the store name, and press *Submit* 



ELSA system will list all the found AP, and pop out the suitable one for user to confirm. Press "Yes" when the AP info was confirmed

Change Access Point IP	Address
Input information b	elow
	Static ODHCP
IP Address	192 . 168 . 2 . 1
Subnet Mask	255 . 255 . 255 . 0
Gateway IP Address	0.0.0.0
	0(-2-
Apply	Close

hange Access Point IP Address	
nput information below	
nput Password	
Password1234	
Ok	Cancel
Apply	Close

User can change the IP configuration of AP by double click the "pencil". And type "1234" for the confirmation password following

• Preparing the Network



ELSA system will start to find the available wireless channel to use, and the whole process will take 1 hour. Press "Show detail" for more information.



Press "Install Routers" for next step, when the progress bar reaches to 100%

#### • Install Router

Power on the Router

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Once the RT had been registered, user shall able to see the "AP" and "ROUTER" in "ESL\_Management" page

#### Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### **IMPORTANT NOTE:**

#### FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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