RM310 for FLI-425 Option Module
User Instructions

1 Configuring RM310 module from AWTX default settings

1.1 RM310 for FLI-425 LED Status

The RM310 when the FLI-425 indicator is powered on the module has a series of LED lights for basic status.

- A- Power LED (DS6)
- B- Two System LEDs (DS1 & DS2). May blink on and off.
- C- Ethernet Speed LED (DS4). When ON, link speed is 100Mb/s. When OFF (DS5 on), link speed is 10Mb/s. Link speed is auto-negotiated

1.2 Connecting to the Web Manager

The Web Manager is a web browser-based user interface where the wireless module’s settings can be modified.

1. Power on the FLI-425 indicator with the RM310 Module installed. The RM310 is powered by the FLI-425 COM port.

2. Connect to the wireless network created by the module. The password is case-sensitive.

2a. SSID: AwtxAP

2b. Password: SCALES1971

2c. Note: If the DEFAULT button is pressed for 6 seconds the module will be factory reset. The SSID will be reset to xPico240_XXXXXX where XXXXXX refers to the last 6 digits of the serial number printed on the module. Refer to the Appendix for manually configuring the module after a factory reset.
3. In a web browser, go to **192.168.0.1**. This is the default IP address for the module’s access point (AP) connection. This will take you to a login page that is hosted by the module. These are the default credentials to log in (both are case sensitive):

3a. Username = **admin**
3b. Password = **PASSWORD**

4. The webpage interface for RM310 will be displayed. Example is shown below:

![Webpage Interface](image)

### 1.3 Changing the login credentials

The user login is required in order to change settings on the module once you have connected to its ap0 network (as done in step 2 above). The credentials can be modified by following these steps:

1. Once logged in, click User to add/edit privileges and change passwords for gaining access to the module.
2. By default, there is a user called admin. This user profile can be edited by clicking on it in the User menu.

![User Menu Screenshot]

3. To add a new user, click in the text box **Create new User** and type in a name for the user. Click **Submit** to create it.

4. Once a new user has been created, you can click on the user name. In this menu you can set the password for the user and set the user privileges. The different privileges are explained in the upper right portion of the web page. Click **Submit** to apply any changes.

### 1.4 Creating a WLAN profile

Creating a WLAN profile provides the module the information it needs to connect to a wireless network. This includes the network name (SSID/ESSID), passphrase, and security/encryption settings.

1. Click on WLAN Profiles. This will show a list of any existing WLAN profiles. To edit an existing profile, click on its name in the list.

2. To create a new profile, click in the text box labeled Create new WLAN Profile and type in a name for the profile. Click **Submit** to create the profile. To edit the newly created profile, click on its name in the list.

![WLAN Profile Screenshot]

3. The **Network Name** is the SSID/ESSID of the wireless network. This is case sensitive.

4. If using WEP, the **WEP Key Size**:
   - 40 is 64-bit
   - 104 is 128-bit.

5. For WEP key, the key is **HEX value**.
   - 40 is 10-digit HEX key
   - 104 is 26-digit HEX key

*Please consult with IT support to obtain the HEX value for the WEP wireless network.*
6. When entering in the WPA/WPA2 **Passphrase**, remember that this is case sensitive.
7. Remaining options leave as default unless instructed by support or IT to modify.
8. When finished making changes to the profile, click **Submit**.

1.5 Changing the ap0 SSID/Passphrase

The SSID and Password can be changed for the module access point.
1. Click on **Network**. Then click on **ap0**.
2. Click on **Link**. Then click on **Configuration**.
3. In the SSID and Passphrase fields, enter the desired SSID and passphrase, respectively.
4. Click **Submit** to apply any changes.
5. If the end user has more than five modules in operating vicinity, please disable the ap0 after the RM310 is confirmed connected to the wireless network. Leaving the ap0 operating with multiple RM310 modules can cause wireless network disruptions.

1.6 Testing RM310 on FLI-425

Once RM310 has been configured for the local wireless network, to validate the settings are correct and module is functioning on the wireless network. The webpage can be used to determine the IP address of the wlan interface when set to DHCP.
1. Power on the FLI-425, then press and hold **F1** key.
2. At the password prompt enter in **911** and press **Enter**.
3. Select **Diagnostics Manager**, press **Enter**.
4. Select **Communications**, press **Enter**.
5. Select **Ethernet Diagnostics**, press **Enter**.
6. If configuration of the RM310 module is successful the Ethernet IP address will be based on the wireless network. Here is an example of the Ethernet Diagnostics screen on the FLI-425.

![Ethernet Diagnostics Screen]

7. The IP Address listed here is the same IP Address of the RM310 module to connect to it.

8. Press **OK** to exit the **Ethernet Diagnostics** screen.

9. Press **ESC** three times followed by pressing **No** to exit the menus and return to normal operation.

1.7 **Resetting RM310 to factory defaults**

The module can be reset to factory defaults. This option should only be performed if misconfiguration or factory recommended.

1. Remove the cover from the RM310 to access the **Default** button.

2. With the indicator powered on, press and hold the **Default** button for 6 seconds. Release once the DS2 LED starts to blink.

3. Reinstall the cover to the RM310 module.

4. Please refer to the Appendix section to complete the manual setup of the module.
2 Appendix – Configuring the RM310 module after a factory reset

2.1 Connecting to the Web Manager

1. Power on the indicator with the RM310 module installed.

2. Connect to the wireless network created by the xPico using the unique xPico 240 SSID. The SSID format is

\[ \text{xPico240\_XXXXXX} \]

where \( XXXXXX \) refers to the last 6 digits of the serial number printed on the module.

The default SSID passphrase is \( \text{PASSWORD} \)

3. In a web browser, go to 192.168.0.1. This is the default IP address when the module is an access point (AP). This will take you to a login page that is hosted by the module. These are the default credentials to log in (both are case sensitive):

- Username = admin
- Password = PASSWORD

2.2 ap0 Settings

Refer to Changing the ap0 SSID/Passphrase on page 4.

2.3 wlan0 Settings

1. In the Web Manager, go to the Network menu and click on wlan0.

2. Click on Link.

3. Click on Configuration.

4. In the DHCP Client field, set it to Enabled.

5. Click Submit to apply changes.

2.4 eth0 Settings

1. In the Web Manager, go to the Network menu and click on eth0.

2. Click on Configuration.
3. Make sure that **State** is set to **Enabled**.
4. Set **DHCP Client** to **Enabled**.
5. Click **Submit** to apply changes.
6. Click on **Link**.
7. Click on **Configuration**.
8. In the **PHY Address** field, set it to 1.
9. Click **Submit** to apply changes.

### 2.5 Mach10 Settings

1. In the Web Manager, go to the MACH10 menu and make sure **Device** is selected. Click on **Configuration**.
2. Set **State** to **Disabled**.
3. Click **Submit** to apply changes.

### 2.6 Ethernet-Wireless Bridge settings

1. In the Web Manager, go to the **Bridge** menu. Click on **Configuration**.
2. Set **Interface** to **wlan0**.
3. Set **Mode** to **Dynamic**.
4. Click **Submit** to apply changes. The changes will not take effect until the module is rebooted.

### 2.7 CPM settings

1. In the Web Manager, go to the CPM menu. Click on **Roles**.
2. Click on **Configuration**.
3. Click **Edit** next to **Role WLAN Active**.
5. Set State to **Enabled**.
6. Set Assert to **High**.
7. Set Mode to **Push-Pull**.
8. Click **Submit** to apply changes.