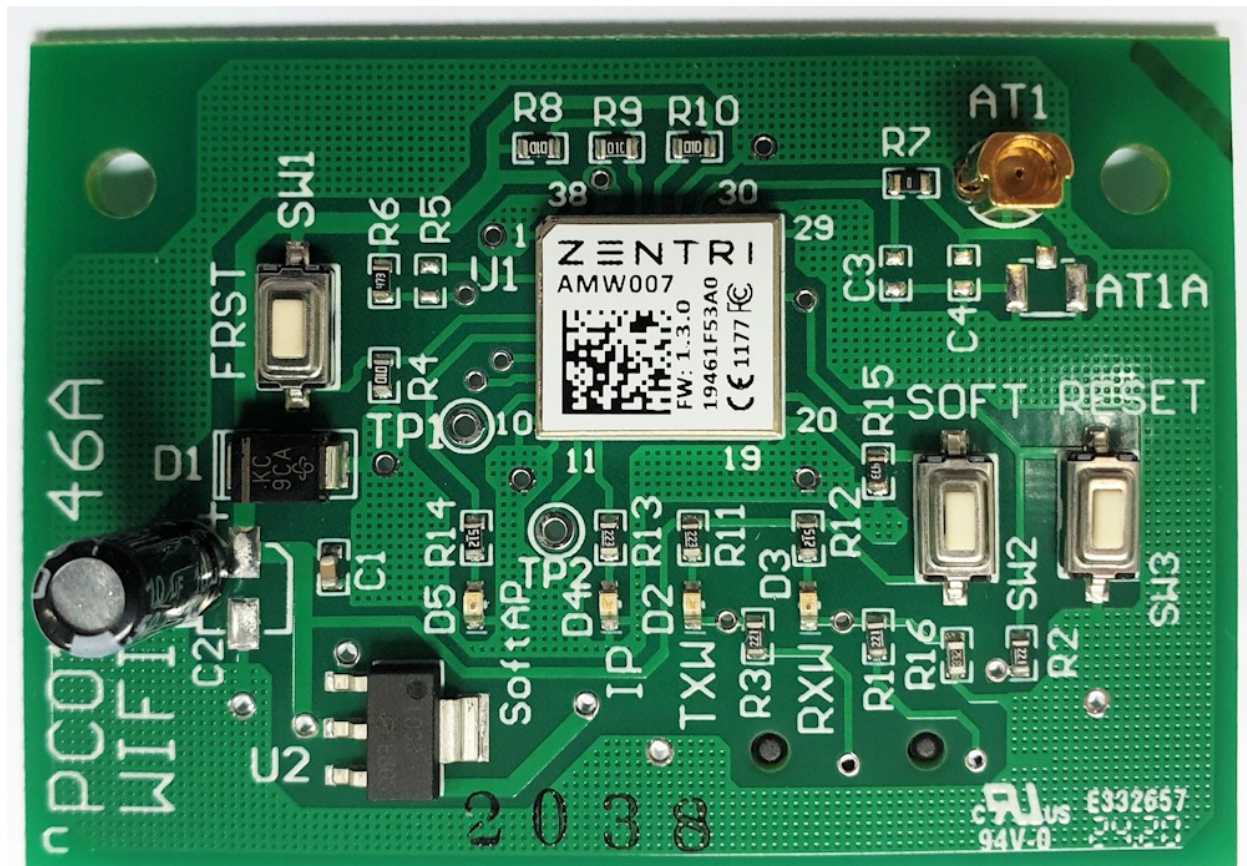


Wifi01 Submodule



Wifi01 is a submodule which plugs in to UCM06, CM9001, LGX01 or UCM/Logic which connects to a wifi Access Point for programming by Comfigurator or for use by the Cytech mobile apps.

Specifications

Wifi Specifications

- Wifi Standards: 802.11 b/g/n
- Frequency Band 2.4 GHz, Channels 1-13
- Protocols/Profiles UDP, TCP, ICMP, DNS, HTTP(S), DHCP, SMTP, SNTP, OTA
- Security – Open, WEP, WPA, WPA2-PSK
- Comms Range > 330m line of sight ($\lambda/4$ antenna)
- RF Transmit Power +19dBm (11b), +16dBm (11g), +14dBm (11n)
- RF Receive Sensitivity -94dBm (11b/g), -90dBm (11n)
- Operating Temp. -40°C to +85°C
- Certifications FCC, CE, IC

CM9001/UCM Features

- Single wifi IP Address and Port (ETH03 has 2 ports) in Server Node
- Higher speed data transfer 38400 baud than USB or ETH03 (9600 Baud). Wifi01 plug in to CM9001, LGX01, UCM/Logic will have the highest speed as there is no RS485 bus involved.
- Network Date/Time Update every day with Daylight saving time correction.

- Current < 100 mA
- Configurator Read/Write, Upgrade Firmware, Upgrade Vocabulary
- Access by Cytech iOS/Android Apps

Ordering Information

Wifi01 can be ordered by itself to be plugged in CM9001, LGX01, UCM/Logic or UCM06, or it can be ordered as UCM/Wifi01 (UCM06 + Wifi01)

The Wifi01 package includes

- Wifi01 submodule
- WA02-0004 Antenna with MMCX connector
- 2 x M3 screws and standoffs

System Requirements

- Comfort II, firmware 7.173 (Wifi01 plugged in CM9001)
- UCM 7.137 (Wifi01 plugged in UCM06)
- Configurator Version 3.13.5 and above to set up Wifi01 in Options > Settings

Buttons

- RESET - Reset Wifi01 Module
- SOFT - Soft AP Button (See Instructions below)
- FRST: Factory Reset. (See Instructions below)

LED Indicators

- TXW (Red) - Blinks when data is transmitted to Wifi
- RXW (Green) - Blinks when data is Received from Wifi
- IP (Green) - Fast Flash when Wifi01 is not in network, Slow Flash when network is joined
- Soft AP (Red) - Flashes when in Soft AP mode, Off when in Normal Station Mode

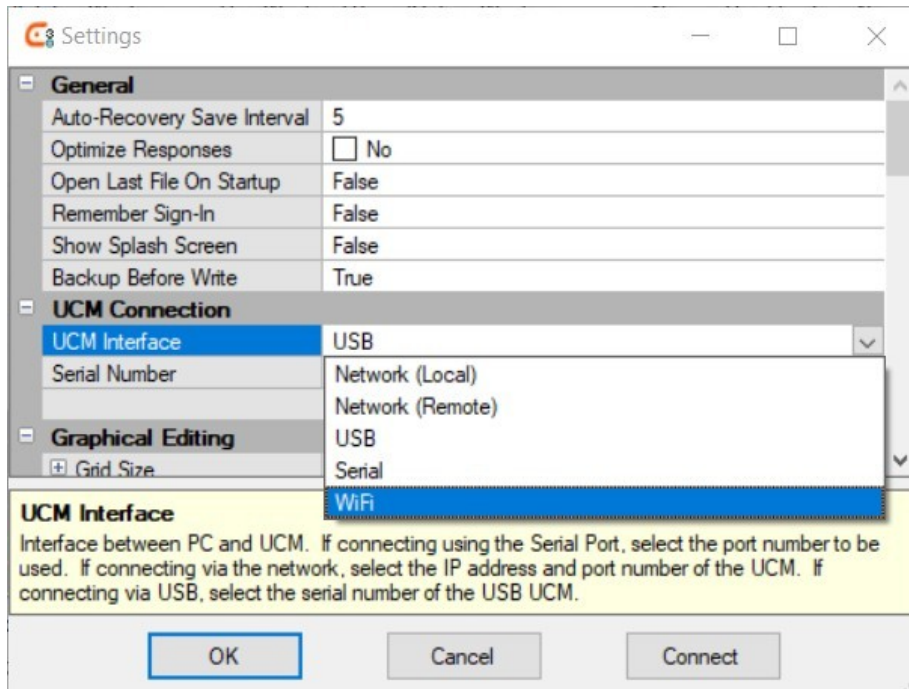
Connection

- If the Wifi01 has been purchased separately, remove the CM9001 or UCM06 from the enclosure and screw in the 2 standoffs with nuts from the back of the CM9001 or UCM06 PCB so that Wifi01 can be plugged in on top of the PCB.
- If using with UCM06, remove any submodule eg USB01 or ETH03 from UCM06 before mounting Wifi01
- Plug Wifi01 into the 10 way female connector on UCM06 or CM9001 and screw in to the threaded standoff
- Plug the antenna into the MMCX connector on Wifi01. The Antenna should be mounted outside the CM9001 Metal enclosure. The Wifi01 and Enclosure should be mounted in a location that is able to access Wifi.
- For UCM/Wifi, set up the ID on the UCM Base Board (Refer to UCM Manual). For CM9001, ID is not required

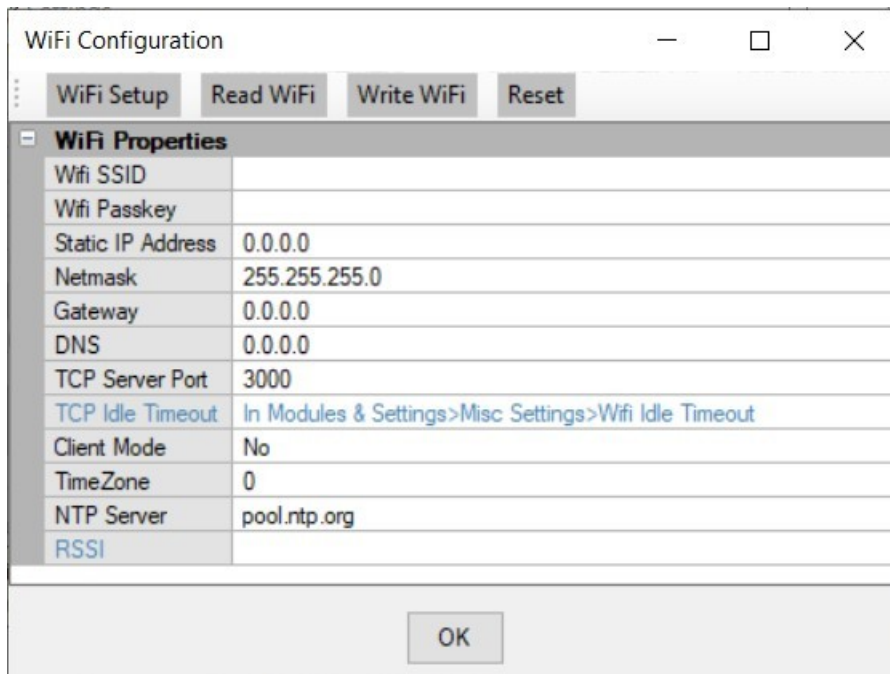
Using Configurator

Use Configurator software 3.13.5 or above to configure Wifi01. Download from <http://www.cyttech.biz/configurator.html>

Go to Menu > Options > Settings > UCM Interface and select Wifi from the drop-down list as shown below.



After selecting Wifi, click on Wifi Configuration.

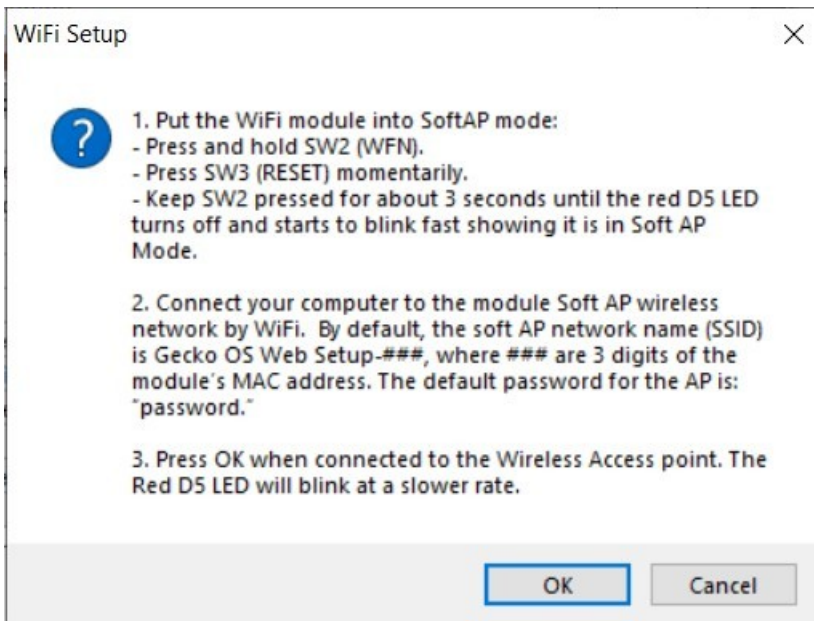


Fill in the fields required

- Wifi SSID: The SSID of your wifi access point
- Wifi Passkey: The passkey of your wifi access point
- Static IP Address: enter a static IP address to be assigned to Wifi01
- Netmask: eg 255.255.255.0

- Gateway: IP address of your router or gateway eg 192.168.0.1
- TCP Server Port: Port used for Wifi communications in Server Mode eg 3000
- Client Mode: No for normal use. Client Mode is used for Universal UCM
- Time Zone: Enter Time zone in hours for UTC.
- NTP Server: This is the time server which supplies the Internet time to Wifi01. Leave it at the default unless otherwise instructed. Wifi01 will update the Date and Time to CM9001 every day. Go to Configurator Schedule > Sunrise/Sunset Times, Sunrise/Sunset Properties and set up your City/Location. This allows CM9001 to handle Daylight Saving Times correctly.

Press the Wifi Setup button . The following screen appears. Follow the instructions by pressing the buttons on the Wifi01 PCB



Soft AP mode allows your computer to make an initial connection to Wifi01 so that the Wifi01 settings can be written to it. In Soft AP mode the red SOFTAP LED will flash, as well as the Green IP LED..

Look for the SSID eg Gecko OS Web Setup xxxxx, and connect to it.

Enter "password" when asked for the passkey

When connected to the Soft AP SSID, press OK above. If successful, you should see the screen below.

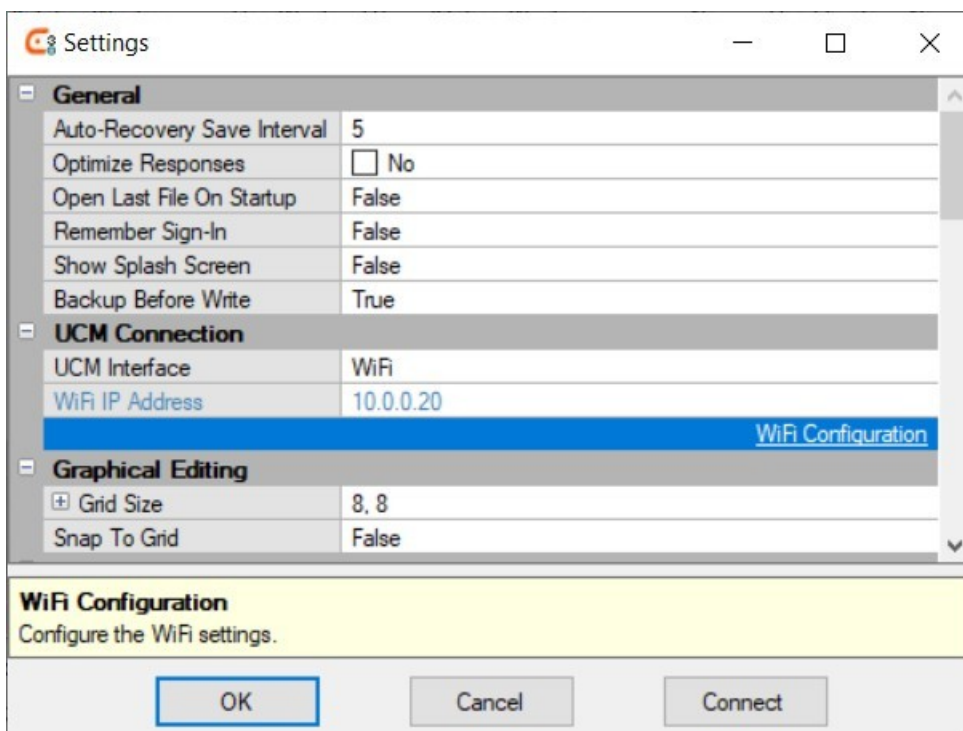


Press OK to acknowledge. "Copy to Clipboard" if there is a problem, to investigate the setup. Send to support@cytech.biz for assistance if necessary.

After pressing OK, Soft AP mode is disabled and the Soft AP SSID should no longer be seen. The Soft AP Mode is ended, and the Wifi01 will be a station on the Wifi network

On the Wifi01, the green IP LED should flash slowly if it has joined the network. It will blink fast if the Wifi01 is not part of any network. If necessary press the RESET button on Wifi01.

After setup is completed, you can see the Wifi IP address as shown below.



WiFi Configuration

WiFi Setup Read WiFi Write WiFi Reset

WiFi Properties	
Wifi SSID	CYLINK
Wifi Passkey	Cytech12345678
Static IP Address	10.0.0.20
Netmask	255.255.255.0
Gateway	10.0.0.100
DNS	10.0.0.100
TCP Server Port	3000
TCP Idle Timeout	In Modules & Settings>Misc Settings>Wifi Idle Timeout
Client Mode	No
TimeZone	8
NTP Server	pool.ntp.org
RSSI	-50

Wifi Passkey
Password of the AP.

OK

In the Wifi Configuration Screen, "Read Wifi " button reads the wifi settings from Wifi01, if it has been set up. "RSSI" is a Read only field that shows the Wifi signal strength. "Write Wifi" writes the changed settings to Wifi01.

UCM/Wifi01

For UCM/Wifi01, Modules Tab> Scanning for Modules will show UCM and its properties in the UCM section.

Comfort Modules

UCM01

UCM Properties	
Id	1
Name	UCM01
Type	General
UCM Command Type	None
Version	7.141
Latest Version	7.136
Serial Number	Unassigned
Submodule Type	Unknown
User Comments	

CM9001 with Wifi01

If Wifi01 is mounted on CM9001, Modules Tab> Scanning for Modules will show UCM properties as part of Controller Properties instead of in the UCM section

Comfort

Modules

Controller

UCMs

Keypads

Keypad01

Keypad010

Keypad03

Keypad04

DoorStations

DoorStation01

Slaves

Slave01

Sensors

Sensor01

SCS/RIO/IRIOs

ScsRio01

ScsRio02

ScsRio03

HIOs

Controller

Controller Properties

Name	Comfort II Ultra
Comfort FileSystem	34
Comfort Version	7.183
Latest Version	Unknown
Serial Number	Unassigned
Vocabulary Number	18
Custom Vocabulary	False
System Vocabulary Version	43
User Vocabulary Version	1
LCD Text Version	2
LCD KP Min Version	3

UCM Properties

Version	7.141
Latest Version	Unknown
Serial Number	Unassigned
UCM Command Type	None

Factory Reset

Factory Reset is performed by Pressing and holding FRST for at least 10 seconds while pressing RESET momentarily before releasing FRST. TXW, RXW blinks when done. Do not do this unless instructed by Cytech Technical Support.

Troubleshooting Notes

The Wifi01 module is detected by UCM06 or CM9001 at Power On. Resetting the CM9001 or UCM does not reset the Wifi module so that the wifi connection is not disconnected during a System Reset.

If Comfigurator cannot connect to the Wifi01 module ("Unable to connect to UCM" message), press the Reset button on Wifi01.

Note that the message "Incorrect Login Code" does NOT mean that Wifi01 is not connected - it means the User Code is incorrect.

To Reset the Wifi Module, press and release the RESET button on the Wifi01. Do not remove or plug in the Wifi01 from CM9001 or UCM06 with power on. Always turn off power before removing or plugging in Wifi01.

Document History

15 October 2020 - Initial Release

Printing Size A6 Booklet

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