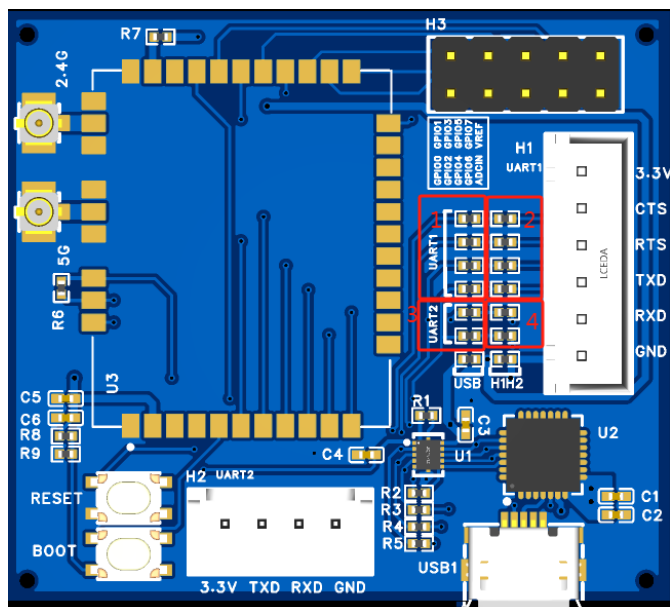


## **P-WF88M Application Note**

Amp'ed RF Technology, Inc.





| Serial port mode     | 1  | 2  | 3 | 4 |
|----------------------|----|----|---|---|
| UART1 connect to USB | 0R | NC | - | - |
| UART1 connect to H1  | NC | 0R | - | - |

## 2. MQTT Configuration Example

## 2.1. Usage

### 2.1.1. Set/update

To set a configuration variable enter:

```
at+wf config xxxx = yyyy
```

Where "xxxx" is the variable name and "yyyy" is the value to set. A variable name may also be specified as "varzz". Where zz is the sequence number of the variable.

### 2.1.2. Inquiry

An inquiry may be made using:

```
at+wf config xxxx
```

Where “xxxx” is the variable name. The reply will be the current setting.

### 2.1.3. Listing

All non-hidden variables may be listed using:

```
at+wf config
```

Using the WF88M, configure the parameters for MQTT in STA mode next. For a full list of configurations, see the *WF88M\_ConfigGuide*.

|                    |              |   |                              |
|--------------------|--------------|---|------------------------------|
| LINKTYPE           | 0            | 0:TCP/1:MQTT  | Link mode of current device  |
| MQTTServerIP       | 192.168.1.76 | IP address  | MQTT Server IP address       |
| MQTTServerPort     | 1883         | Port Number   | MQTT Server Port Number      |
| MQTTServerUsrName  | admin        |   | User name for authentication |
| MQTTServerPasswd   | password     |   | Password for authentication  |
| MQTTSubscribeTopic | testtopic    | Topic name, 20 char   | Current subscribe topic      |
| MQTTPublishTopic   | testtopic    | Topic name, 20 char   | Current publish topic        |
| MQTTQoS            | 0            | 0: maximum delivery once.<br>1: delivered at least once.<br>2: delivered only once. | Value of QoS                 |
| MQTTAuthType       | 1            | 0: Username/password,<br>1: Single,<br>2: HandShake,<br>4: None                     | Type of Authentication       |

The following configurations must be entered:

## 2.2. Configurations

at+wf config LinkType = 1  
Set for MQTT

at+wf config MQTTServerIP = broker.emqx.io  
Select the broker here

at+wf reset  
Necessary to take effect

at+wf join [SSID] [password]  
reply: AT-WF DHCP OK.  
Get ip XXXX

at+wf mqttstart  
reply: AT-WF MqttConnectedOK  
MQTT OK;

### 2.3. Optional configurations:

#### MQTTServerPort

The port number of MQTT Broker corresponds to Protocol (tcp/ssl), which means that when using "tcp" protocol, there is a corresponding port number; when using "ssl" protocol, it will correspond to another port number.

#### MQTTServerUserName and MQTTServerPasswd

"UserName" and "PassWord" indicate that MQTT Broker requires a username and password to establish a connection.

#### MQTTSubscribeTopic and MQTTPublishTopic

"SubTopic" represents topic the client subscriptions to. "PubTopic" represents topic the client publishes to.

### 2.4. Topics

The WF88M has 2 pre-defined topics:

SToC: Messages sent from the broker will be present to the WF88M TX UART.

CToS: Activated from data on the WF88M RX UART pin. Messages will be sent to the broker.