

W88-M Configuration Guide

Amp'ed RF Technology, Inc.

Configuration Commands

This document describes the system configuration variables of the WiFi Serial Interface with their default and range. These values are stored in the non-volatile memory of the module.

1. Usage

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.

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.

1.3. Listing

All non-hidden variables may be listed using:

```
at+wf config
```

2. Configuration Parameters

Name	Default	Range	Description
BuildVersion	151202A		Date code version of the software (read only)
DeviceName	Amped WIFI		Up to 20 characters are allowed (case sensitive)
MAC_ADDR	00043e212345		WiFiMAC address (read only)
DHCPMode	true	true=enable DHCP false=disable DHCP	DHCP on/off.
IPAddress	192.168.0.2		A static IP address, when DHCP off or failed, it will be used
Netmask	255.255.255.0		Netmask of the network
GateWay	192.168.0.1		Gateway of the network
SSID	Amped RF		ESSID of the Access Point connection destination
PassPhrase	12345678		Password of the Access Point to connect
AuthType	1	0=NONE 1= WPA2-PSK	WIFI encryption methods
HostIPAddr	192.168.0.10		Remote device's IP address
IPProtocol	1	0=TCP Server 1=UDP 2=TCP client	Protocol type
HostPort	2015		Remote device's listen port number.
LocalPort	2015		Local listen port number.
UartBaudrate	115200	2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400, 460800, 921600	UART baudrate. Typical: 115200 and 921600
UartParity	none	odd, even, none	UART parity. Typical: none
UartDataBits	8	8, 9	UART data bits per character. Typical:8
UartStopBits	1	0.5, 1, 1.5, 2	UART number of stop bits. Typical:1
UARTFlowControl	False	True= enable UART hardware RTS/CTS flow control False= disable RST/CTS flow control	UART hardware flow control.
UartTimeout	16	8 - 255	Timeout used to determine the end of a message in units of bit times. Typical: 16
ATReply	AT-WF		AT command reply prefix. All events that are displayed are prefixed by this character string (case sensitive)
HostEvents	TRUE	True=on; False=off	Host events display on/off.
Hardware	WF88-M		Module hardware type. (read only)
CpuMHz	42		Module's CPU speed: 42Mhz is supported
DeviceMode	STA	0=STA; 1=AP, 2=AP- STA,3=Mesh,4=AP- Mesh	WIFI module operation mode
OutMtuSize	1400	1 - 1420	Packet size of UART received. Typical:1400
MaxSTACount	5	1-12	Maxim station number in AP mode. Typical:5
MPMode	0	0=Disable; 1=Enable	Multiple connections on/off
HostShallowSleepEn	False	True= enable enter Shallow Sleep mode False= disable enter Shallow Sleep mode	Enable/disable Shallow Sleep mode

HostDeepSleepEn	False	True= enable Deep Sleep mode False= disable Deep Sleep mode	Enable/disable Deep Sleep mode
Channel	1	2.4GHz: 1-13 5GHz: 36-165	Set the WiFi channel for AP mode (no effect in STA mode). Valid entries are: 2412-2472 MHz: 1,5,9,13 5180-5240 MHz: 36,40,44,48 Indoor band: 5260-5700: 52,56,60,64,100,104,108,112,116,120,124,128,132,136,140 5745-5825 MHz: 149,153,157,161,165
StationInactive	120	15-255second	When StationInactive time passed, station didn't send any data, AP will confirm whether station still in region
AudioMode	1	0=DLNA; 1=Airplay	Choose the audio mode
AutoJoin	false	False:disable autojoin True: enable autojoin	Autojoin function enable/disable
SPIEnable	false	False:disable SPI True:enable SPI	Enable/Disable SPI interface for Bypass mode data passthrough. Use UART when SPI is Disable. Command mode always uses UART.
SPIMode	slave	Master or Slave	Set SPI interface role (Master or Slave)
GPIO_HostWakeup	none	none: disable gpio wake up function x(1...6): set GPIOx as wake up pin	GPIOx HIGH: enter into active mode form sleep mode. GPIOx LOW: enter into sleep mode from active mode.
DnsMode	IP	IP or DNS	IP = IP address for target endpoint, DNS = Domain name lookup for target endpoint.
DnsDomainName	NA		Domain used in DnsMode above.
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. 1: delivered at least once. 2: delivered only once.	Value of QoS
MQTTAuthType	1	0: Usrname/password, 1: Single, 2: HandShake, 4: None	Type of Authentication
MQTTCaCrt	CA.crt		Server certificate file name
MQTTClinetCrt	client.crt		Client certificate file name
MQTTClinetKey	client.key		Client key file name
MESH_ID	mymesh12345678	Network name	Mesh network name to join

Note: configurations listed with *Typical* parameters are the values that Amp'ed RF Technology has tested internally. Other values have not been tested.

