

USB-WIFI Data Sheet



Figure 1 - USB-WIFI device

Overview

The USB-WIFI is a Wifi evaluation kit based on the Gainspan GS1011MIE wifi module to provide education on using the Wifi interface. When installed, the USB-WIFI adaptor will appear as a virtual Com port.

Parameters

Parameter	Value	Nominal
Baud rate	9600 to 921.6kbps	9600,8,n,1
Supply	3.3V (USB Powered)	-
Current (Idle)	5 to 25mA	9mA

Table 1 - Electrical Characteristics

Baud Rate

The baud rate may be set using the ATB (ATB=9600) command. The default baud rate is 9600,8n1.

Operation

Plug the USB-WIFI adaptor into a USB port. Allow windows to automatically install the driver, or download the driver from : <http://www.ftdichip.com/Drivers/VCP.htm>. When the driver has installed, open the Device Manager and determine which COM port number is used by the FT232R USB UART device. Run a terminal program such as the Blue Terminal program (download

from www.esdn.com.au), select the COM port, and set the baud rate as 9600 with no hardware control. Type AT+VER=? to check the module is working.

WIFI Commands

Press Enter after all commands.

Command	Description
AT+VER=?	Return the firmware versions
AT+NSTAT=?	Return the Status
AT+NDHCP=1	Turn on the DHCP
ATS5=999	Set the scan time to maximum
AT+WS	Scan for Wifi networks

Table 2 – Gainspan Wifi Commands

Examples

User entered text is shown as ***bold italics***.

AT+VER=?[ENTER]

S2W APP VERSION=2.2.4

S2W GEPS VERSION=2.2.4

S2W WLAN VERSION=2.0.21

OK

AT+NSTAT=?

MAC=00:1d:c9:80:1a:53

WSTATE=NOT CONNECTED MODE=NONE

BSSID=00:00:00:00:00:00 SSID="" CHANNEL=NONE SECURITY=NONE

RSSI=0

IP addr=0.0.0.0 SubNet=0.0.0.0 Gateway=0.0.0.0

DNS1=0.0.0.0 DNS2=0.0.0.0

Rx Count=0 Tx Count=0

OK

AT+WS[ENTER]

BSSID SSID Channel Type RSSI Security

98:fc:11:99:fa:64, SRI , 11, INFRA , -60 , WPA2-PERSONAL

No.Of AP Found:1

OK

Schematic

Below is a schematic taken from the GS1011M datasheet

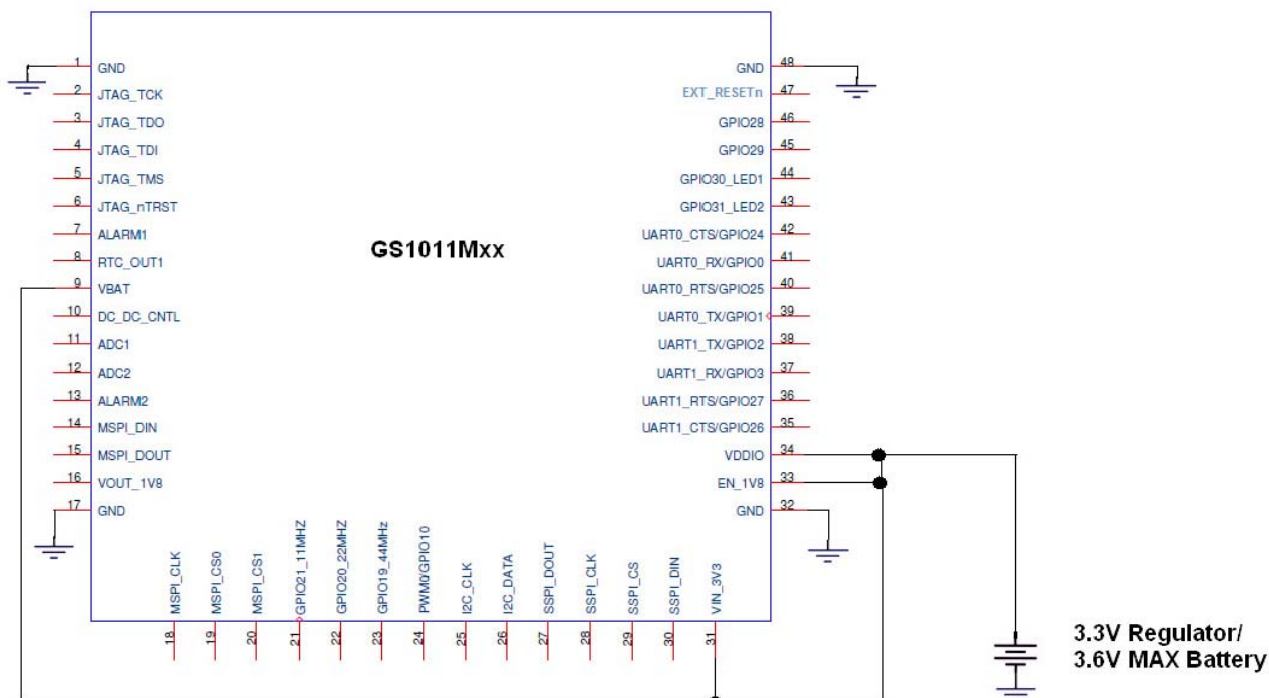


Figure 2 – Schematic

Reset Switch

The USB-WIFI module has a hardware reset switch. Pressing this switch is equivalent to sending RESET through the serial port. The USB-WIFI adaptor will respond with the text string below:

Unexpected Warm Boot(Possibly Low Battery)

References:

1. *GS1011M_Datasheet_rev 1_2.pdf* – general datasheet for Gainspan GS1011M wifi module
2. *Serial_to_WiFi_Command_Reference* – command instruction list
3. *AN025 - GS-SOC Serial to WiFi Bridge* – step by step instruction on how to send data via Wifi