

ESP8266 -01 General purpose control board

2x4 outputs

Model 8266GPCB01 2/2/15

General description

The 8266GPCB01 ESP8266 based general purpose control board is a configurable WIFI enabled device that allows controlling 2 banks of 4 signals suitable to drive relays or other low current devices (LEDs, other digital boards, etc). It is based on the ESP8266-01 and features the following characteristics:

- Custom ESP8266 firmware has been installed on the board.
- Configurable using a web browser. No need for serial interface.
- Reset button
- Flash programming switch, if reprogramming of the ESP8266 is needed
- 5V power input
- Serial RX and TX screw terminal for convenient serial programming or monitoring
- Board responds to TCP protocol commands sent to port 9999 at the IP address assigned to the board, i.e. xxx.xxx.xxx.xxx:9999

Setting up the board

Using a web browser

- Connect the 5V power
- Press board reset button
- From your computer, check available wireless networks and connect to a network which name has the form ESP_STATION_xxxxxxx
- When prompted, enter the password to the ESP_STATION. The preset password is 'espadmin'
- Wait until your computer successfully connects to ESP_STATION_xxxxxxx

- From your web browser and after station is connected, point to 192.168.4.1
- Wait until your browser shows the IP address that has been assigned automatically to the board
- Take note of that IP address, this is the address for the board WIFI
- You can now send TCP commands to the board IP address on port 9999 according to the logic table below.

Using the serial interface

- Using your favorite terminal program connect to the serial port the board is plugged into
- Connect the RX on the board to the TX of the USB serial cable, and the TX on the board to the RX on the USB serial cable
- Type `node.restart()`
- You should receive a message:
 - > *Firmware Copyright (c) 2014 zeroday nodemcu.com*
 - > *Custom firmware Copyright(c) 2015 Snaptekk www.snaptekk.com*
 - > *ESP8266 2x4 GPIO Control v01*
 - > *The Station IP is not yet set*
- Type:
 - > `wifi.setmode(wifi.STATIONAP)`
 - > `wifi.sta.config(ssid,password)`
 - ssid: the ssid of your WIFI network
 - password: the password of your WIFI network
- Type `node.restart()`
- Wait a few seconds and you should see the message:
 - > *Board IP successfully assigned 192.168.x.x*
(this is the IP assigned to the board)

TCP command	Bank A				Bank B			
	1	2	3	4	1	2	3	4
0	Off	Off	Off	Off	Off	Off	Off	Off
1	On	Off	Off	Off	On	Off	Off	Off
2	Off	On	Off	Off	Off	On	Off	Off
3	On	On	Off	Off	On	On	Off	Off
4	Off	Off	On	Off	Off	Off	On	Off
5	On	Off	On	Off	On	Off	On	Off
6	Off	On	On	Off	Off	On	On	Off
7	On	On	On	Off	On	On	On	Off
8	Off	Off	Off	On	Off	Off	Off	On
9	On	Off	Off	On	On	Off	Off	On
10	Off	On	Off	On	Off	On	Off	On
11	On	On	Off	On	On	On	Off	On
12	Off	Off	On	On	Off	Off	On	On
13	On	Off	On	On	On	Off	On	On
14	Off	On	On	On	Off	On	On	On
15	On	On	On	On	On	On	On	On

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