

Increase the power of the WIFI

Question asked by e-mail: sometimes I work in difficult conditions and I want to know if it is possible to improve the WIFI power of the box?

The numerous tests made in situation and the user feedbacks allow us to say that the WIFI power of the RTS DMX 512 box is often superior to the values announced in the technical documentation.

However, in certain configurations of use (outside, important distance of the control desk, bad environment for the waves) he can be reassuring to be able to improve the power of the WIFI signal and thus his impact. We tested several WIFI repeaters which settle perfectly well this task.

We use the model TL-WR710N of TP-LINK and the following explanations take it as example.



It is necessary to get back first of all all the data of connections of the router installed in the RTS DMX 512 box: SSID, IP address, MAC address and WEP key.

The SSID, the IP address and the WEP key are indicated on the label stuck on the case as well as on the documentation delivered with.

The MAC address is a physical address of the router fixed during its manufacturing. The manipulation which follows will allow you to obtain it.

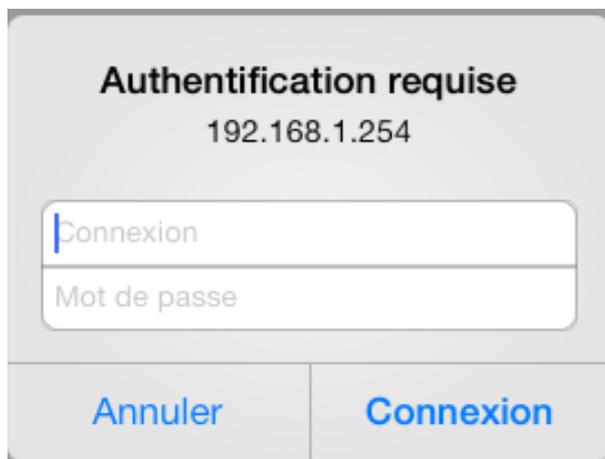
Plug the box and connect the iPad or a computer with the router RTS DMX.

Once the iPad is connected on the network of the box, launch an Internet browser (Safari for example) and to seize: 192.168.1.254 in the address bar. It is about the default IP address of the router of the box.



Seize the name of connection «admin» and the password «admin».

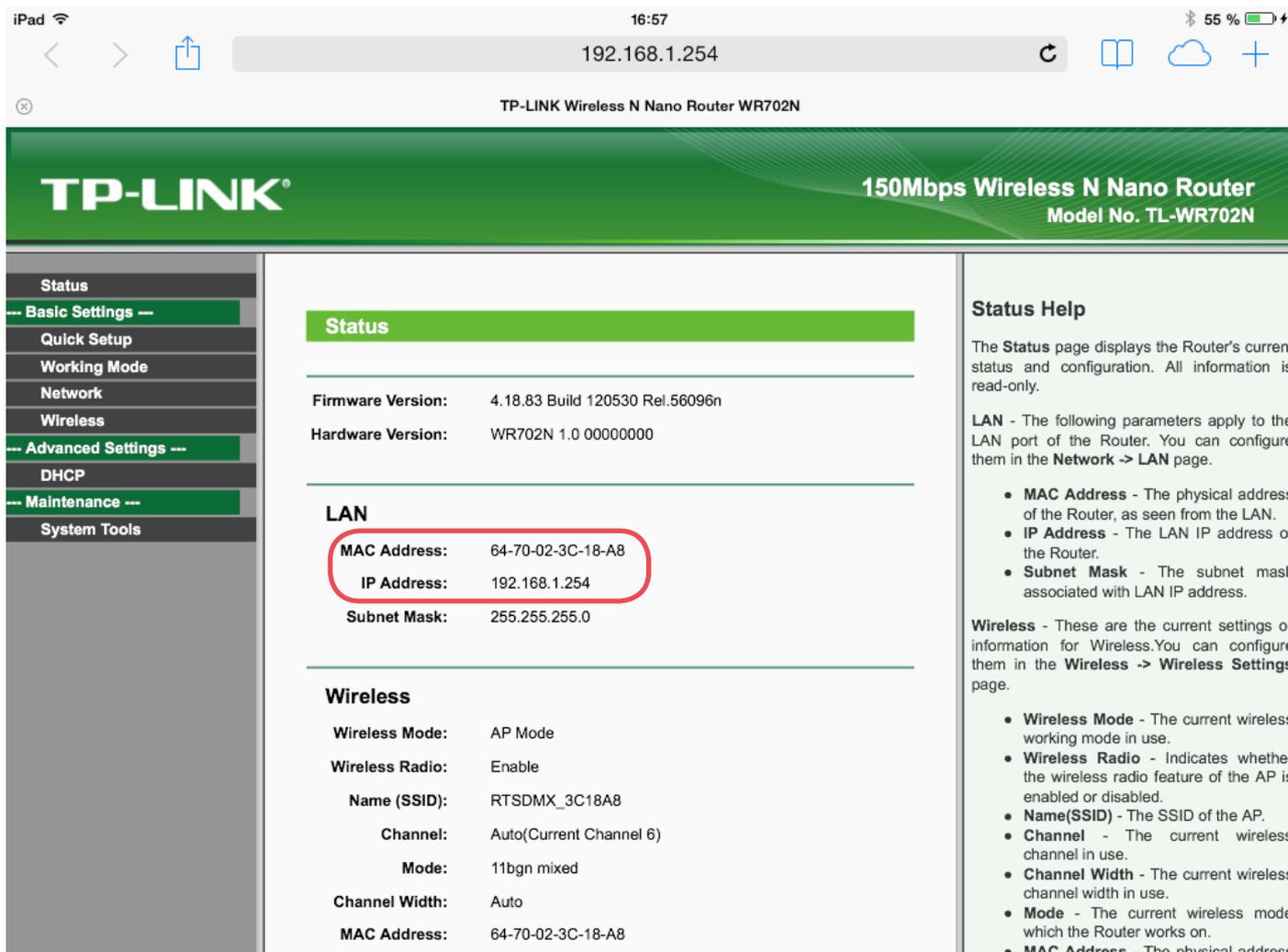
The browser is then going to load the administration page of the router. Be careful to change no settings without a real knowledge of networks because the slightest involuntary modification can prevent the use of the application.



Authentication require
192.168.1.254

Connexion
Mot de passe

Annuler Connexion



TP-LINK 150Mbps Wireless N Nano Router Model No. TL-WR702N

Status

Firmware Version: 4.18.83 Build 120530 Rel.56096n
Hardware Version: WR702N 1.0 00000000

LAN

MAC Address: 64-70-02-3C-18-A8
IP Address: 192.168.1.254
Subnet Mask: 255.255.255.0

Wireless

Wireless Mode: AP Mode
Wireless Radio: Enable
Name (SSID): RTSDMX_3C18A8
Channel: Auto(Current Channel 6)
Mode: 11bgn mixed
Channel Width: Auto
MAC Address: 64-70-02-3C-18-A8

Status Help

The Status page displays the Router's current status and configuration. All information is read-only.

LAN - The following parameters apply to the LAN port of the Router. You can configure them in the Network -> LAN page.

- **MAC Address** - The physical address of the Router, as seen from the LAN.
- **IP Address** - The LAN IP address of the Router.
- **Subnet Mask** - The subnet mask associated with LAN IP address.

Wireless - These are the current settings or information for Wireless. You can configure them in the Wireless -> Wireless Settings page.

- **Wireless Mode** - The current wireless working mode in use.
- **Wireless Radio** - Indicates whether the wireless radio feature of the AP is enabled or disabled.
- **Name(SSID)** - The SSID of the AP.
- **Channel** - The current wireless channel in use.
- **Channel Width** - The current wireless channel width in use.
- **Mode** - The current wireless mode which the Router works on.
- **MAC Address** - The physical address

The screen which opens then presents the useful information for the continuation, of which the MAC address of the router.

Once this manipulation ended, to avoid any confusion, to disconnect the RTS DMX 512 box.

It is necessary to configure at the moment the repeater with the data connection of the RTS DMX router. According to the models, it can be made by the WIFI but most of the time, the configuration will have to be made by connecting the repeater with a computer by an Ethernet cable.

Plug the repeater and connect the computer or the tablet by following the indications of the manufacturer. For the TP-LINK repeater, the IP address by default is 192.168.0.254.

Modify the settings of the device

1-by choosing the mode repeater;

2-by indicating the SSID and the MAC address of the router;

3-by settling the IP address of the repeater to 192.168.1.253 (address recommended to work with the RTS DMX 512 box);

4-by configuring the WEP key of the box.

According to the models of repeaters, the order of the operations can change.

Verify attentively that the settings are in accordance with specification and plug the RTS DMX 512 box. The presence of the repeater is transparent for the iPad.

The screenshot shows the web interface of a TP-LINK TL-WR710N router. The browser address bar shows the IP address 192.168.1.253. The page title is '150M Wireless N Mini Pocket Router Model No. TL-WR710N'. The left sidebar contains navigation options: Status, Quick Setup, Working Mode, Network, Wireless, DHCP, USB Settings, and System Tools. The main content area is divided into three sections: Status, Wired, and Wireless. The Status section shows Firmware Version: 3.14.9 Build 130419 Rel.58371n and Hardware Version: WR710N v1 00000000. The Wired section shows MAC Address: 64-66-B3-48-53-0A, IP Address: 192.168.1.253, and Subnet Mask: 255.255.255.0. The Wireless section shows Working Mode: Universal Repeater, Wireless Name of Root AP: RTSDMX_3C18A8, Channel: 6, Mode: 11bgn mixed, Channel Width: Automatic, and MAC Address: 64-66-B3-48-53-0A. The right sidebar contains a 'Status Help' section with a description of the Status page and a list of settings for Wired and Wireless LANs.

| Section | Field | Value |
|----------|--------------------------|--------------------------------|
| Status | Firmware Version | 3.14.9 Build 130419 Rel.58371n |
| | Hardware Version | WR710N v1 00000000 |
| Wired | MAC Address | 64-66-B3-48-53-0A |
| | IP Address | 192.168.1.253 |
| | Subnet Mask | 255.255.255.0 |
| Wireless | Working Mode | Universal Repeater |
| | Wireless Name of Root AP | RTSDMX_3C18A8 |
| | Channel | 6 |
| | Mode | 11bgn mixed |
| | Channel Width | Automatic |
| | MAC Address | 64-66-B3-48-53-0A |

Status

Quick Setup

Working Mode

Network

Wireless

- Wireless Settings

- Wireless Security

- Wireless MAC Filtering

- Wireless Advanced

- Wireless Statistics

DHCP

Wireless Settings

Repeater Mode:

Universal Repeater WDS Repeater

Wireless Name of Root AP:

RTSDMX_3C18A8

MAC Address of Root AP:

64-70-02-3C-18-A8

Region:

France

Warning:

Ensure you select a correct country to conform local law. Incorrect settings may cause interference.

Status

Quick Setup

Working Mode

Network

Wireless

- Wireless Settings

- Wireless Security

- Wireless MAC Filtering

- Wireless Advanced

- Wireless Statistics

DHCP

USB Settings

System Tools

Wireless Security

Disable Security

WPA/WPA2 - Personal(Recommended)

Version:

WPA2-PSK

Encryption:

AES

Wireless Password:

24192446

(You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Group Key Update Period:

0

Seconds (Keep it default if you are not sure, minimum is 30, 0 means no update)

WPA/WPA2 - Enterprise

Version:

Automatic

Encryption:

Automatic

Radius Server IP:

Radius Port:

1812

(1-65535, 0 stands for default port 1812)

Radius Password:

Group Key Update Period:

0

(in second, minimum is 30, 0 means no update)

WEP

Type:

Automatic

WEP Key Format:

Hexadecimal

Key Selected

Key 1:

Key 2:

Key 3:

Key 4:

WEP Key

Key Type

52756E5469

84bit

Disabled

Disabled

Disabled

We do not recommend using the WEP encryption if this device operates in 802.11n mode due to the fact that WEP is not supported by 802.11n specification.

Save

Status

Quick Setup

Working Mode

Network

Wireless

DHCP

- DHCP Settings

- DHCP Client List

- Address Reservation

USB Settings

System Tools

DHCP Settings

DHCP Server: Disable Enable

Start IP Address:

End IP Address:

Address Lease Time: minutes (1~2880 minutes, the default value is 120)

Default Gateway: (Optional)

Default Domain: (Optional)

Primary DNS: (Optional)

Secondary DNS: (Optional)

Save