

## How to Control RWC2010x Equipment via LAN

The RWC2010x equipment is connected via Ethernet socket using UDP for remote control, utilizing port 5001. It can be connected using two methods: STATIC and DYNAMIC.

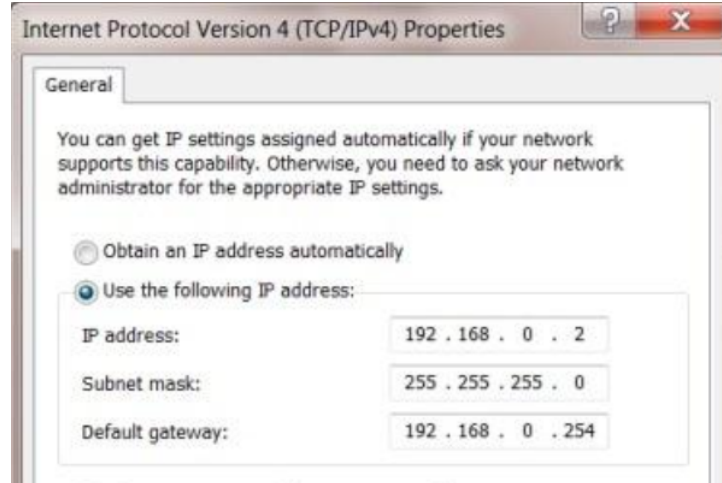
RWC2010x can be controlled using command strings and is accessible for control by any user program without API.

### 1.Setup for STATIC IP

- 1) Connect LAN port of PC and RWC2010x Ethernet port using RJ45 cable. If the PC and RWC2010x are connected directly, a cross cable must be used.
- 2) Turn RWC2010x power ON, press [MENU] key and touch [SETUP] menu to jump on the system configuration screen and configure IP address. In order to connect RWC2010x in static mode, select IP\_TYPE as STATIC.



- 3) Put the same IP address with RWC2010x's IP address except the last slot. For reliability, it is recommended to disable all other networks (e.g. WiFi, Virtual Machine) than Ethernet in Network Adapter Settings of a remote PC.

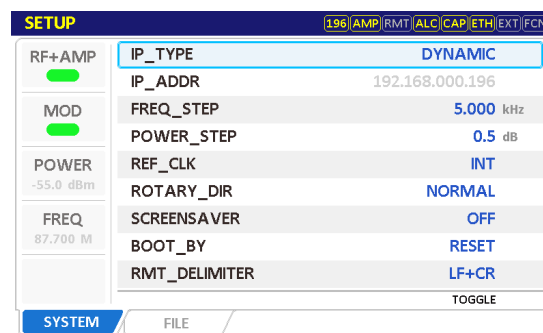


- 4) Run software and set up the same IP address with RWC2010x.
- 5)

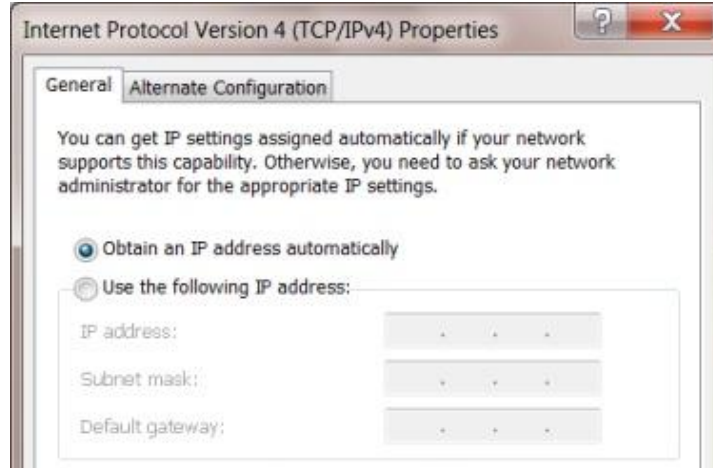


## 2. Setup for DYNAMIC IP

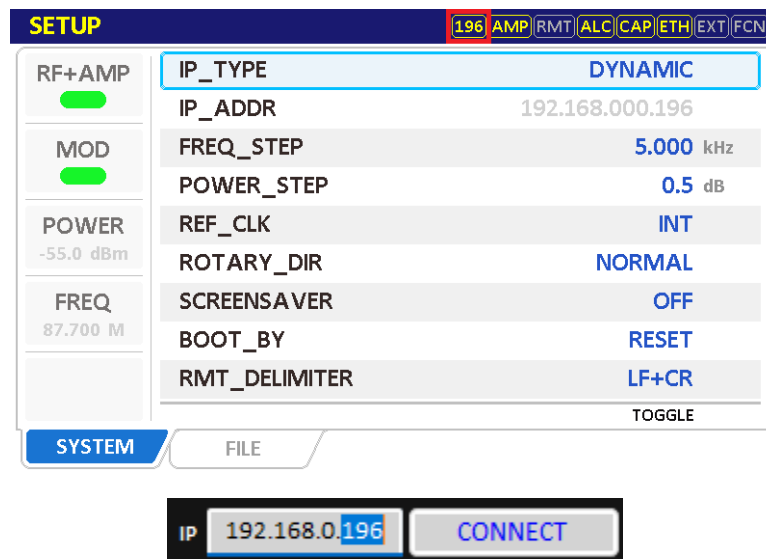
- 1) DYNAMIC means that IP address is obtained from the DHCP server automatically, and this configuration is recommended using RJ45 connection to a network hub.
- 2) Turn RWC2010x power ON, press [MENU] key and touch [SETUP] menu to jump on the system configuration screen and configure IP address. In order to connect RWC2010x in static mode, select IP\_TYPE as DYNAMIC.



- 3) DYNAMIC means that IP address may be obtained from the DHCP server automatically, and this configuration is recommended using RJ45 connection to a network hub.



- 4) Open software and set up the same IP address with RWC2010x.



### 3. Creating an UDP socket in user program

If users want to control RWC2010x using their program, they need to create a UDP socket and set the port to 5001.

The following is an example in C#

```
[Creating a UDP socket]
byte[] rx_buff = new byte[256];

IPAddress LocalAddress = IPAddress.Any;
IPAddress DestAddress = IPAddress.Parse("192.168.0.196");
IPEndPoint RemoteIpEndPoint = new IPEndPoint(DestAddress, 5001);

Socket rwcSock = new Socket(LocalAddress.AddressFamily, SocketType.Dgram,
    ProtocolType.Udp);
rwcSock.Connect(RemoteIpEndPoint);

// [EX1] send a command *IDN?
byte[] tx_buff= Encoding.ASCII.GetBytes("*IDN?\n");
rwcSock.Send(tx_buff);
rwcSock.Receive(rx_buff);
string resp = Encoding.ASCII.GetString(rx_buff);
// resp = "RWC2010C Digital Radio Tester, Ver=1.023, SN=RWC20100000009\r\n"

//[EX2] send a command CONF:SETUP:TESTERMODE ETI
tx_buff= Encoding.ASCII.GetBytes("CONF:SETUP:TESTER_MODE ETI\n");
rwcSock.Send(tx_buff);
rwcSock.Receive(rx_buff);
string resp = Encoding.ASCII.GetString(rx_buff);
// resp = "ACK\r\n"
```