

## Introduction:

Data-Linc's SRM8200 is a license free 900MHz long range modem with dual Ethernet and dual serial connectivity. The SRM8200 is a wireless high-performance modem designed for heavy-duty industrial data communications. It has RF speed of up to 4 Mbps and is based on Adaptive FHSS, a new paradigm for band utilization that takes optimal advantage of spectrum gaps. The SRM8200's range is up to 40 miles with line-of sight (LOS) and may be extended with Repeaters and/or high gain antennas to provide unsurpassed flexibility and performance. The SRM8200 may be configured via web interface, Command Line Interface (CLI), Drag and Drop and SSH (Secure Shell).



## 1. Getting Started

Equipment included with every SRM8200 shipment package:

Quantity	Description
1	SRM8200
1	Power Supply 12VDC
1	Test Antenna
1	6 ft Cat5 Cable

Additional equipment needed for network setup:

- PCs running Windows 7 or later
- Web Browser (Internet Explorer, Firefox, Chrome, etc.)

## Connections:

- Connect the test antenna.
- Connect the CAT5 Ethernet cable to the PC (for configuration).
- Connect the unit to power using the included 12VDC power supply.

## 2. Accessing the SRM8200

This Quick Start Guide explains how to access the SRM8200 through the Ethernet port on a web browser. The default login credentials for the SRM8200 are:

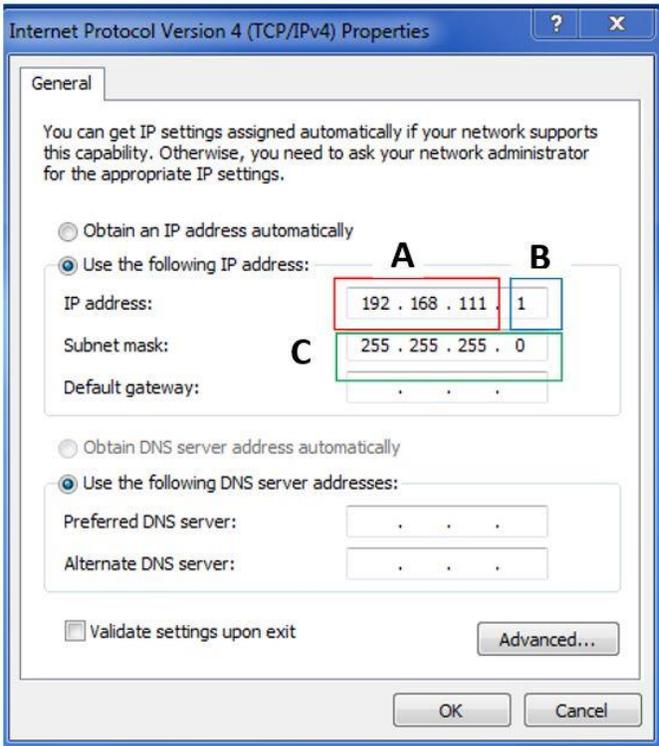
**Username:** admin, **Password:** admin

The SRM8200 has a default IP address of 192.168.111.100 and subnet mask of 255.255.255.0. To access the SRM8200 from the Ethernet port, connect the SRM8200's Ethernet port to your computer and enter the IP address of the SRM8200 using a web browser. Your computer IP address and Netmask needs to be in the same range as the SRM8200. For example, your computer needs 192.168.111.XXX IP address with the subnet mask 255.255.255.0. Please make sure the IP settings are correct before attempting to access the SRM8200 from the Ethernet port. Either of the Ethernet ports may be used. The normal boot up time for SRM8200 is about 40 seconds.

If your computer's network interface is already configured with a static IP address and you don't want to change it, it is possible to add another static IP address to match the range of the SRM8200. Instructions on how to do this may be found in the SRM8200 User Guide.

If you do not have your computer's IP address set in the same range or the first three octets do not match, then your computer's IP address will need to be changed in order to make a connection to the SRM8200. This will give you quick access to the SRM8200's ethernet port. To do so, please follow the steps below:

1. Go to Control Panel → Network and Sharing Center
2. Check the active networks, click Local Area Connection or Ethernet connection you want SRM8200 to connect to.
3. Right click and go to Properties
4. Under Properties, go to Internet Protocol Version 4 properties and select the option 'Use the following IP address' and complete the following as shown in the screenshot below.

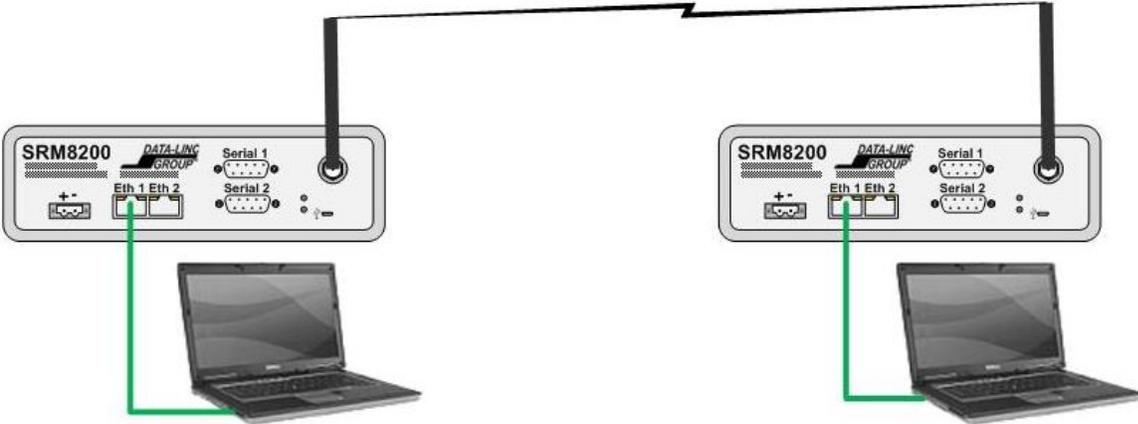


**A:** First three octets: Must match SRM8200 default IP address

**B:** Fourth octet: Must be different than SRM8200

**C:** Subnet Mask: Must be set as above

### 3. Creating a Gateway - Endpoint Network



## 4. SRM8200 Configuration

In order to create a Gateway to Endpoint network as shown above, five basic configuration settings need to be changed.

**NOTE:** Anytime you make a change to the configuration setting, make sure to click on **'Update'** at the bottom of the page in order to save the changes.

The five basic settings are:

1. IP address
2. Radio Mode
3. RF Data Rate
4. Network Id (may be any 1- 4 digits number)
5. Radio Hopping Mode

IP address setting may be found on the Network tab towards the left of the web interface.

System Info	Radio Settings	Radio Settings Helpers	Encryption	Data Path	Local Diagnostics	Config	Services	<b>Network</b>		
Network Stats	NTP	Com1	Com2	Terminal Server Relay	Date	SNMP	Security	Runtime Environment	Modbus	Io Ex Com

Network

MAC Address: 70-b2-d5-c8-10-0d

**IP Address: 192.168.111.100**

**Netmask: 255.255.255.0**

**Gateway: 192.168.111.1**

STP Enabled: false

Txqueuelen: 25

MTU: 1500

Nameserver Address1: 8.8.8.8

Nameserver Address2: 8.8.4.4

Netmask Filter Enabled: false

Arp Filter Enabled: false

Vlan MGMT: 0

Vlan Tag: 0

**Update**

It's important to have RF Data Rate, Network Id and Radio Hopping Mode settings the same between Gateway and Endpoint radios. The rest of the settings may be left as shown on the Gateway and Endpoint screenshots. TX Power (Transmit Power) is set to minimum for bench testing which may be changed as needed.

## Gateway

System Info	Radio Settings	Radio Settings Helpers	Encryption	Data Path	Local Diagnostics		
Network Stats	NTP	Com1	Com2	Terminal Server Relay	Date	SNMP	Security
Radio Settings							
	Radio Mode	Gateway					
	RF Data Rate	RATE_500K					
	Radio Max Repeaters	0					
	TX Power	min					
	Network ID	51966					
	Frequency Key	Key0					
	Radio Hopping Mode	Hopping_On					
	Beacon Interval	ONE_HUNDRED_MS					
	Beacon Burst Count	3					
	LNA Bypass	0					
	Max Link Distance In Miles	20					
	Frequency Masks						
<input type="button" value="Update"/>							

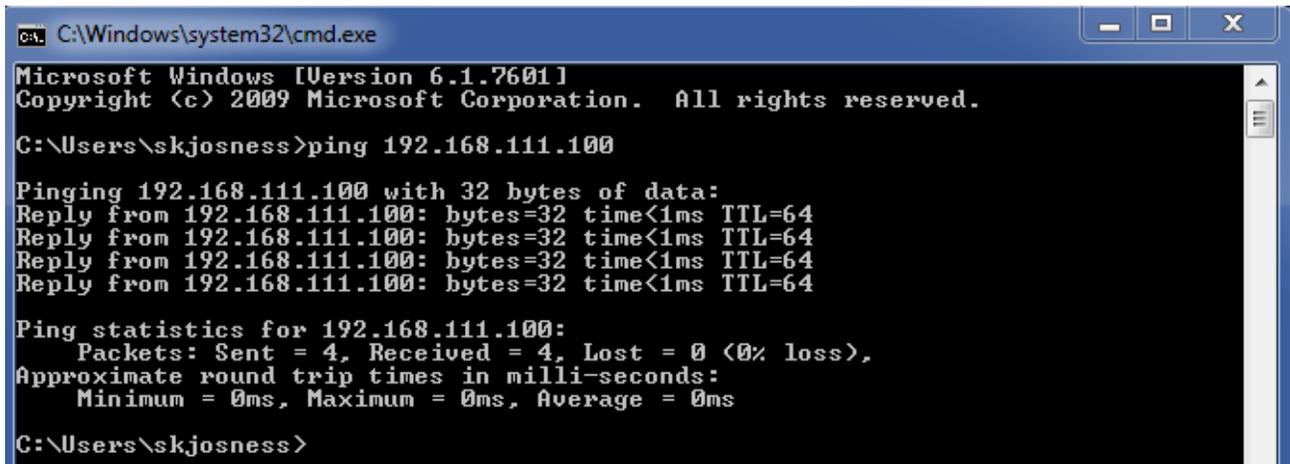
## Endpoint

System Info	Radio Settings	Radio Settings Helpers	Encryption	Data Path	Local Diagnostics		
Network Stats	NTP	Com1	Com2	Terminal Server Relay	Date	SNMP	Security
Radio Settings							
	Radio Mode	Endpoint					
	RF Data Rate	RATE_500K					
	TX Power	min					
	Network ID	51966					
	Node ID	41023					
	Radio Hopping Mode	Hopping_On					
	LNA Bypass	0					
	Max Link Distance In Miles	20					
	Frequency Masks						
<input type="button" value="Update"/>							

## 6. Verifying Wireless Data Communication

When wirelessly connected, the bottom LED should be ON (green) on each SRM8200. A flashing red indicates there is no RF link between the two SRM8200s.

To verify wireless data communication, a simple ping test may be run. Below is a screenshot for ping response from the Gateway SRM8200 on IP address 192.168.111.101 to the Endpoint SRM8200 on IP address 192.168.111.100.



## 7. RESTORE FACTORY DEFAULTS

If you have changed the password on the SRM8200 and cannot log into the configuration screens or the terminal window, and do not know the SRM8200's IP Address, you can restore the SRM8200 to default:

1. Open a Notepad document.  
Copy and paste these two lines into the document

```
system.passwordRestoreDefaults
config.factoryDefaults=set
```

Save the document with the name: config.cfg  
Plug your PC into the Micro USB port on the SRM8200

When the two drives come up in Windows Explorer, open the drive for the files (not the drivers)

Click on the Windows Explorer window to display files and folders

Now, click on the camera drive icon to see the .txt and other files on the SRM8200.

Drag and drop the config.cfg file you just created into the window.

Bring up a Command prompt and run: ping -t 192.168.111.100.

After the SRM8200 reboots and starts pinging, you can log into the webpages by the default IP Address with the default credentials.



Please refer to the user guide for additional information on SRM8200 configuration.