



**RDSRF-xxx-A4FZ Configuration Utility
User Manual
Rev 1.0**



Reindeer Systems Pvt Ltd

Excellence Through Innovation

B-1, "SHOBA", #26
10th Avenue, Ashok Nagar,
Chennai – 600083
India.



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1 Overview

The RDSRF-xxx-A4FZ Configuration Utility software can be used to configure the settings of the following products

- 1) RDSRF-232-A4FZ-UC
- 2) RDSRF-422-A4FZ-UC
- 3) RDSRF-485-A4FZ-UC

It comes with an easy to use interface, through which the user can configure the serial port settings and the Radio settings.

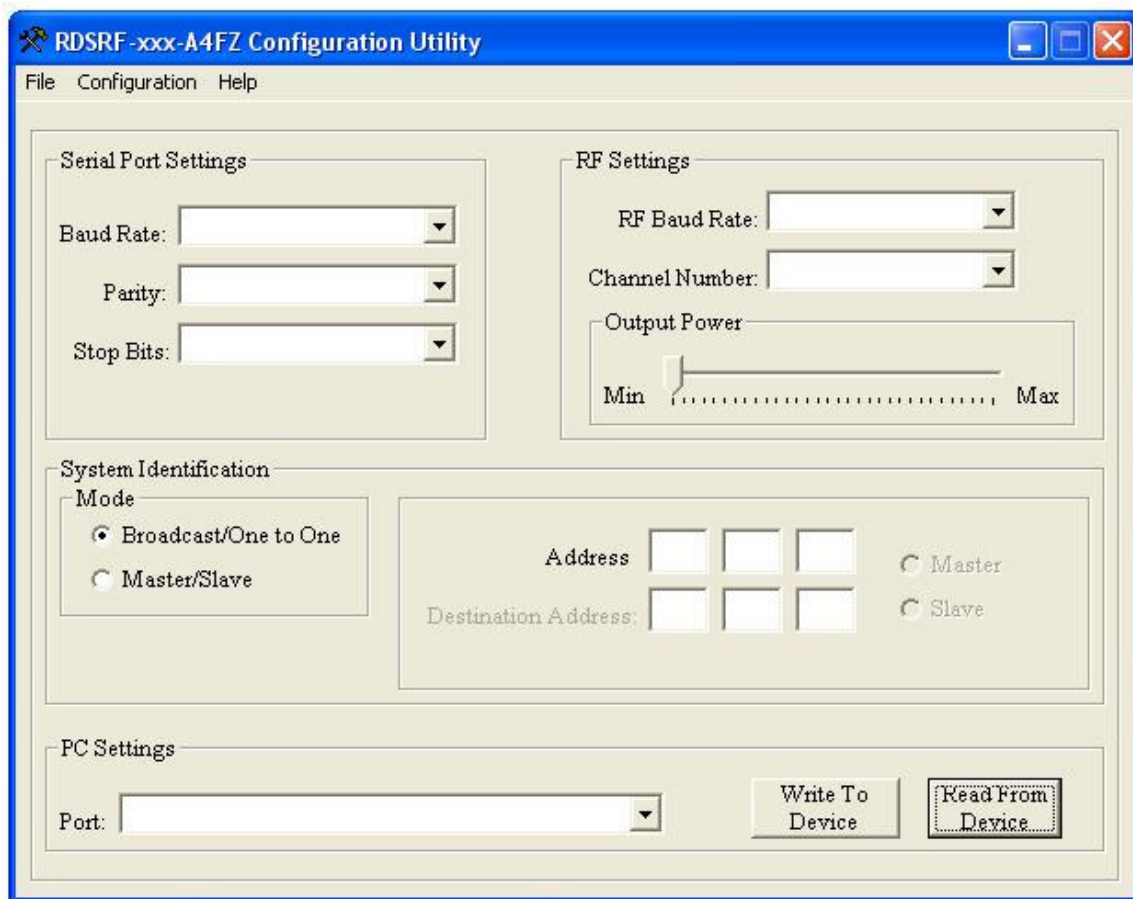


Figure1: RDSRF-xxx-A4FZ Configuration Utility Screenshot



2 Installation Instructions

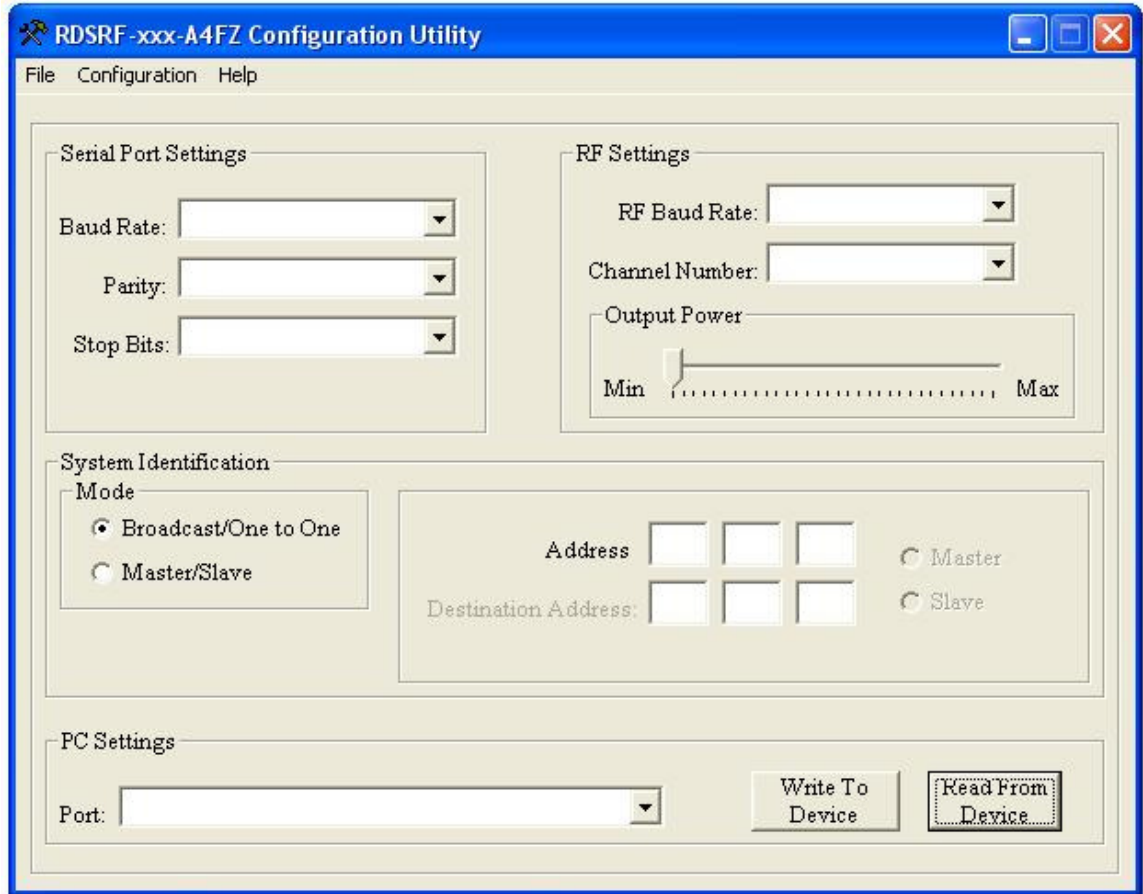
- Turn on your computer
- Insert the software CD into your CD-ROM drive.
- Open My Computer and double click on the CD-ROM icon to open its contents.
- Launch the Setup.exe file
- Follow the on-screen instructions for completing the setup.
- Once the installation is complete the software can be run from the Start menu.

3 Minimum System Requirements

- 400 MHz Pentium® II processor or AMD-K6® class processor
- 64 MB of RAM
- CD-ROM
- 9-pin Serial Port
- Microsoft® Windows® XP Service pack 2



4 Device Settings



4.1 Serial Port Settings

Using these settings the user can change the serial port settings of the boards according to his need. The following settings are available.

Baud Rate : 1200, 2400, 4800, 9600, 19200, 57600, 115200 bps.

Parity : Even, Odd, None.

Stop Bits : 1, 2.



4.2 RF Settings

Using these settings the user can change the behavior of the Radio.

RF baud rate:

The RF baud rate can be set to any one of the following

- 1) 1400 bps
- 2) 2400 bps
- 3) 4800 bps
- 4) 9600 bps
- 5) 19200 bps
- 6) 38400 bps

It must be noted that lower baud rate gives longer range of communication but time taken for sending data will be more. But if higher baud rate is selected the data transmission time will be short but the distance of communication will come down.

Channel Number:

The user can select any channel for communication from 1 to 18. The channel numbers and their corresponding frequencies are given below

Channel 1	--	423 MHz
Channel 2	--	424 MHz
Channel 3	--	425 MHz
Channel 4	--	426 MHz
Channel 5	--	427 MHz
Channel 6	--	428 MHz
Channel 7	--	429 MHz
Channel 8	--	430 MHz
Channel 9	--	431 MHz
Channel 10	--	432 MHz
Channel 11	--	433 MHz
Channel 12	--	434 MHz
Channel 13	--	435 MHz
Channel 14	--	436 MHz
Channel 15	--	437 MHz
Channel 16	--	438 MHz
Channel 17	--	439 MHz
Channel 18	--	440 MHz

The default channel is Channel 11.



Output power:

These settings can be used to vary the power output from the device. The min setting yields -16dBm output power whereas the max setting gives +13dBm output power.

Higher the output power higher will be the range of communication and vice-versa.

4.3 System Identification

The user can use these settings to change the address of the device and also to select whether the device behaves in broadcast/one to one mode or as a master-slave mode. The address is a 24 bit address.

Broadcast mode/one to one mode:

In this mode only one address can be set. This mode can be used when all the devices in a network need to communicate with all the other devices in the same network. Otherwise it can also be used if one to one pairing is needed.

Master-Slave mode:

In this mode the user has to set two different addresses. One is the source address and the other is the destination address. This mode of operation is used only in a typical master-slave environment, where the master can communicate with all the slaves but the slave can communicate only with the master and not with other slaves.

When this mode is selected the user can toggle the address of the master and slave device by just selecting whether the device to be programmed is a master or a slave, by using the master option or the slave option.



4.4 PC settings

Port:

The user can select the COM port which is used to connect the PC to the device for programming the user settings.

Write to device:

This button is used for downloading the user specified setting into the device. Detailed explanation can be found below.

Read from device:

This button is used for reading the settings that has been previously programmed into the device. Detailed explanation can be found below.

5 Write to Device

This button is used for downloading the user defined settings into the device. If any invalid setting is found upon pressing this button an error message will pop-up. Or else if all the settings are valid a progress bar will pop-up indicating the download status. If the download is completed successfully, a *“Programming Successful”* message will appear on the screen. But if the download is not completed successfully the following message is shown *“Programming not successful. Please reset the device and try again.”* While the settings are being downloaded the Green LED on the device will be ON and will turn OFF after download.

6 Read from Device

This button is used to read back the settings that have been previously programmed into the device. If the device is not connected while pressing this button the following message appears on the screen *“Device not found, Reset the device and try again.”* If the device is connected a progress bar will appear on the screen indicating the read back status. After successfully reading from the device all the settings are loaded into their corresponding locations.



7 Menus

There are three menus available in the software which has been explained below.

- 1) File
- 2) Configuration
- 3) Help

1) File

This menu has only one sub-menu named "EXIT". The exit menu button can be used to close the application.

2) Configuration

Under this menu there are three sub menus

a) Load Defaults

The user can use this option to load the default settings. The default settings are as follows.

Serial device settings

Baud rate - 9600 bps
Parity - None
Stop Bits - 1

RF settings

Baud Rate - 9600 bps
Channel - 11
Output power - Max

System Identification

Broadcast/one to one mode
Address - 114 71 21

PC settings

Port - COM1



b) Load Configuration

This option can be used to load any previously saved configuration files. The configuration file format will be “.ini”. If a wrong ini file is selected an error message will pop-up indicating that the file is invalid.

c) Save Configuration

This option can be used to save the user defined settings, which can be loaded again if necessary. The configuration file will be saved in “.ini” format. The user can specify any name for the configuration file.

3) Help

Under this menu the user can find the User guide and the about button.



8 Usage guide

- Change the device to user program mode (More details on changing the mode can be found in the device datasheet).
- Plug in the serial cable, one end to the device and the other to the PC COM port.
- Power up the device. At power up both the LED's will blink.
- Now run the application on the PC.
- Select the required settings and press the "Write to device" button.
- The green LED will turn ON while the settings are being downloaded into the device. The LED will turn OFF after download. And a program successful message will appear on the screen.
- After successful download, power OFF the device, then change the mode of the device to normal mode and power it ON. Now the device is ready to operate according to the settings that have been downloaded.
- Alternatively if the user wishes to read the settings from the device just select the COM port and press the "Read from Device" button. All the previously programmed setting for that device will be loaded into their corresponding locations. While the read back is in progress the Red LED in the device will turn ON and after the read back process is completed it will turn OFF.

Note: - It is always recommended to set the RF baud rate greater than the Serial baud rate.



9 Contact Us

9.1 Technical Support

Reindeer Systems Pvt Ltd has built a solid technical support infrastructure so that you can get answers to your questions when you need them.

Our technical support engineers are available Mon-Fri between 9:30 am and 6:00 pm Indian standard time. The best way to reach a technical support engineer is to send an email to support@reindeersystems.com. E-mail support requests are given priority because we can handle them more efficiently than phone support requests.

9.2 Sales Support

Our sales department can be reached via e-mail at sales@reindeersystems.com or by phone at 91-44-45022335/337.

Our sales department is available Mon-Fri between 9:30 am and 6:00 pm.



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B-1, "SHOBA", #26
10th Avenue, Ashok Nagar,
Chennai – 600083
India.

Phone: 91-44-45022335, 91-44-45022337

Fax: 91-44-45022336

Website: www.reindeersystems.com