

DFS-2100 DF Receiver Simulator for DF2100 Remote Control Consoles

The DF2100 Receiver Simulator DFS-2100 is a software tool designed to help DF2100 Remote Control Consoles users to setup and test DF2100 System. It can also be used for training purposes. The DF Remote Console receiving data from DFS-2100 behaves as if it was connected to the DF Receiver Processor.



Fig.1 DF2100 Receiver Simulator screen shot

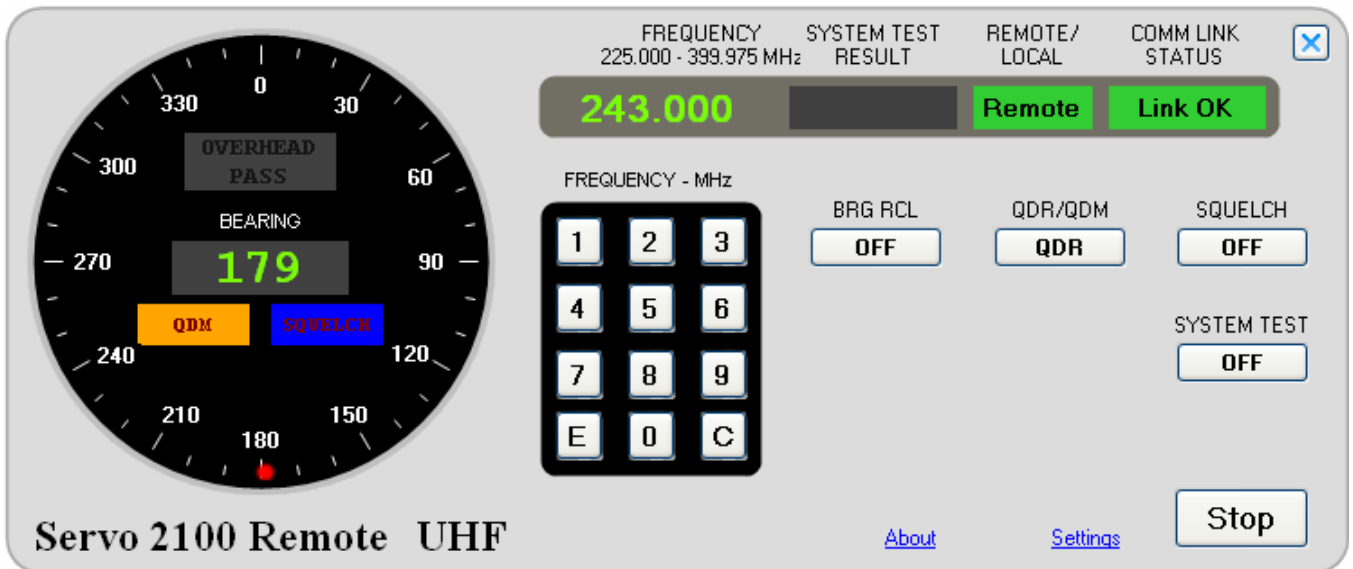


Fig. 2 DF2100 Remote Control Console for single DF site connected to DF2100 Receiver Simulator

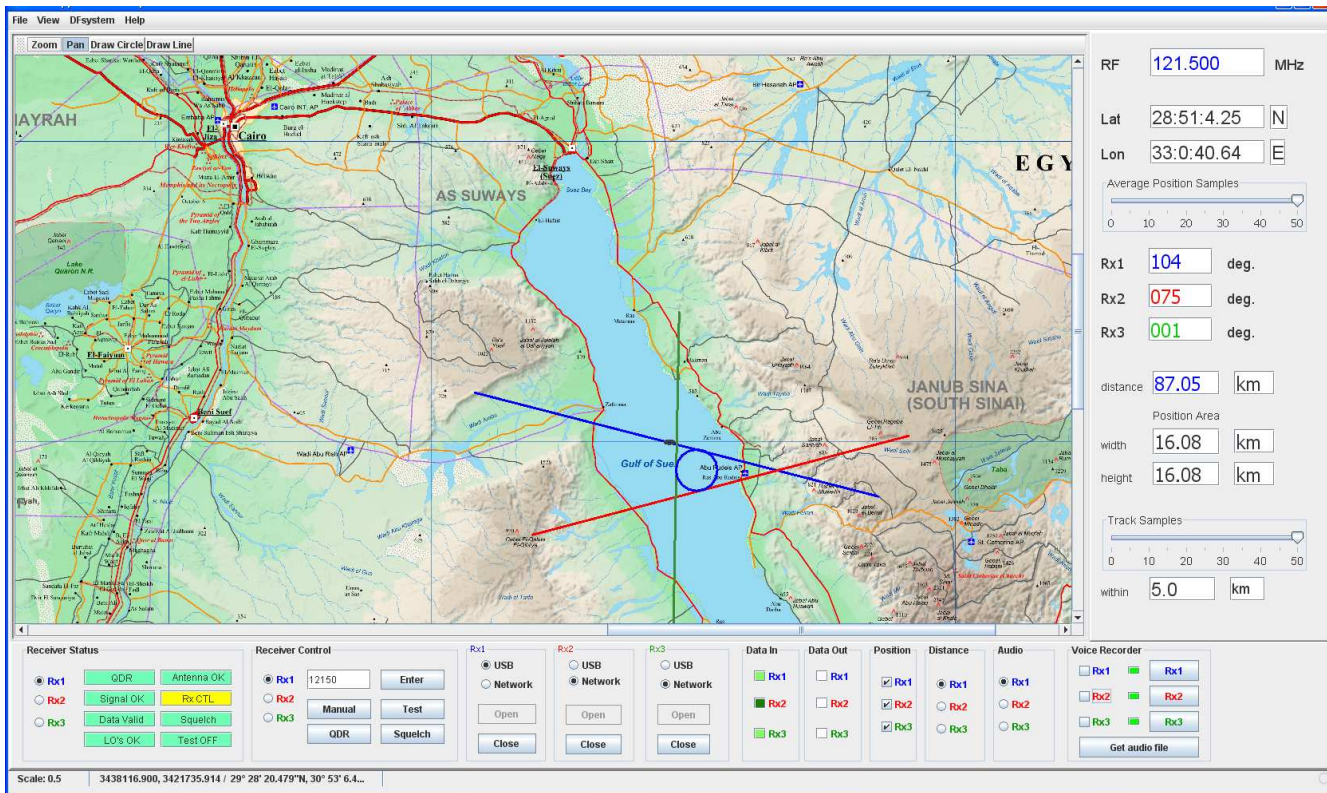


Fig.3 DF2100P Remote Control Console receiving data from 3 DF2100 Receiver Simulators

1.DF Receiver Simulator and Remote Control Console Setup for RS-232 operation.

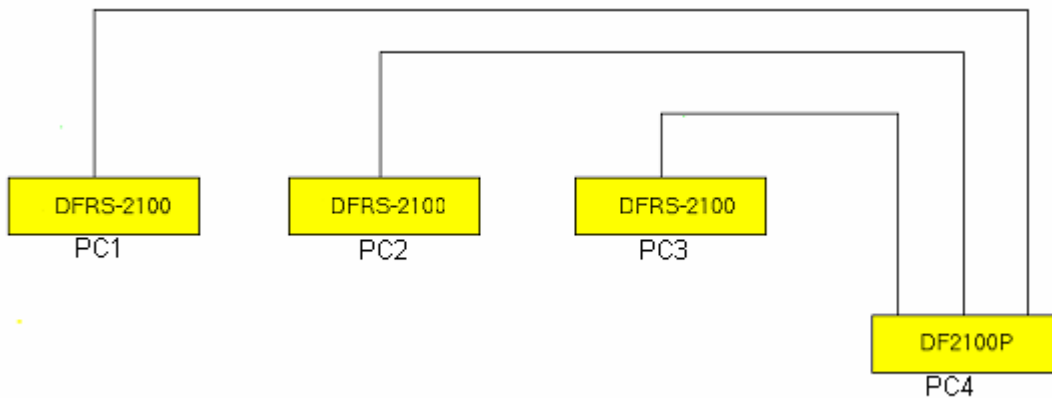


Fig.4 DF Receiver Simulators (PC1,PC2 and PC3) feeding data to DF2100P Remote Console (PC4)

Connect serial ports of PC1, PC2 and PC3 to PC4 remembering the COM port numbers used for each Simulator. Turn on all 4 computers and start DF Receiver Simulator on 3 of them and DF2100P Remote Control Console on the fourth one.

This setup could also be done with the use of one PC only. It is, however, confusing for inexperienced users.

Select the DF receiver type (QDF210, QDF200 or Servo DF2100) and COM ports on all 3 PC's running DF Receiver Simulator and click Open.

This will enable the Simulator to send data to the selected serial COM port.



Fig.5 DFRS-2100 Selecting DF receiver type and COM port

Using the Slider set the bearing value you wish to send to the DF Receiver Remote Console.

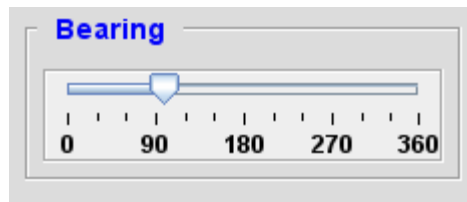


Fig.6 Setting simulated bearing value

Set the RF frequency, bearing jitter and click enter.

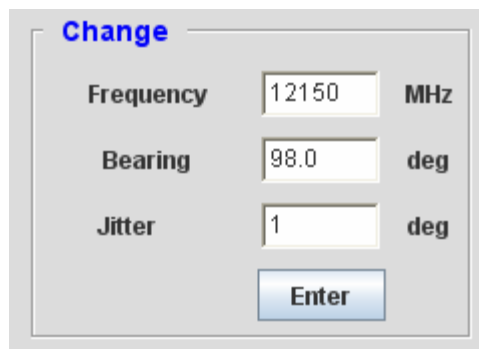


Fig.7 Setting simulated frequency, bearing and bearing jitter

The frequency entry is exactly the same as it is in all Servo receivers (12150 for 121.5 MHz, 12152 for 121.525MHz, 12155 for 121.550 MHz or 12157 for 121.575 MHz).

The bearing jitter could be set to any value between 0 and 10 degrees.

It provides more realistic simulation and gives the user a better feel for the system positioning accuracy.

2. Remote Control Console DF2100P Setup

Once all 3 DF Receiver Simulators are running the user can open the 3 COM ports for DF2100P data input/output.

First select the receiver and connection type:

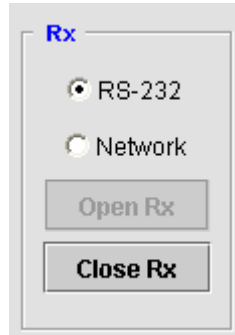


Fig.8 Select Remote Console Connection Type

then the COM port

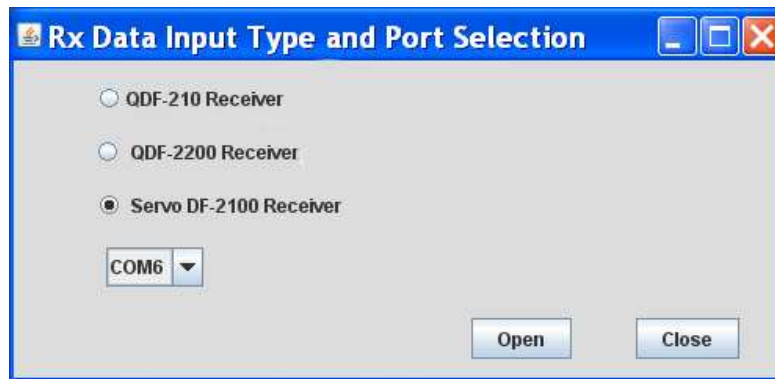


Fig.9 Select Receiver type and COM port

At this point the bearing line and value in a text window should appear on the DF2100P screen. After all 3 receiver inputs are opened the user should see 3 bearing lines (blue, red and green) and 3 bearing values displayed on DF2100P Remote Control Console (see Fig.3)

3.0 Local Control Mode of Operation.

Set the Receiver Simulators to Local Control, enter frequency or bearing information, change QDM or QDR mode, set the Squelch, simulate lack of signal, Invalid Data, Unlocked Synthesizers, Antenna Failure or put the receiver in a Test Mode by clicking on the buttons shown on Fig.1.

If the operator can see all 4 computer screens at the same time he will be able to see the effects of the changes he has made on Remote Control Console DF2100P.

4.0 Remote Control Mode of Operation.

Set the Receiver Simulators to Remote Control by clicking on Local button (Fig.1) enter frequency, change QDM or QDR mode, put the receiver in a Test Mode or set the Squelch using the DF2100P Remote Console. Simulate the lack of signal, Invalid Data, Unlocked Synthesizers or DF Antenna Failure by clicking on buttons shown on Fig.1.

Again if the operator can see all 4 computer screens at the same time he will be able to see the effects of the changes he has made on DF Receiver Simulator screen.

The Remote Control Mode does not prevent the user to manipulate DF Receiver Simulator locally.

It only enables or disables the remote user.

5.0 DFRS-2100 Simulator supports all DF2100 receiver Local and Remote functions:

- Remote/Local operating mode
- QDR/QDM bearing/heading
- Squelch On/Off
- Test On/Off
- Frequency entry
- Bearing display
- Antenna Failure indicator
- LO Failure indicator
- Signal Present indicator
- Data Valid indicator

for more information E-mail
eng@df2100.com

for purchasing E-mail
sales@df2100.com

or call 631.961.9953 (English and Spanish ext.16)