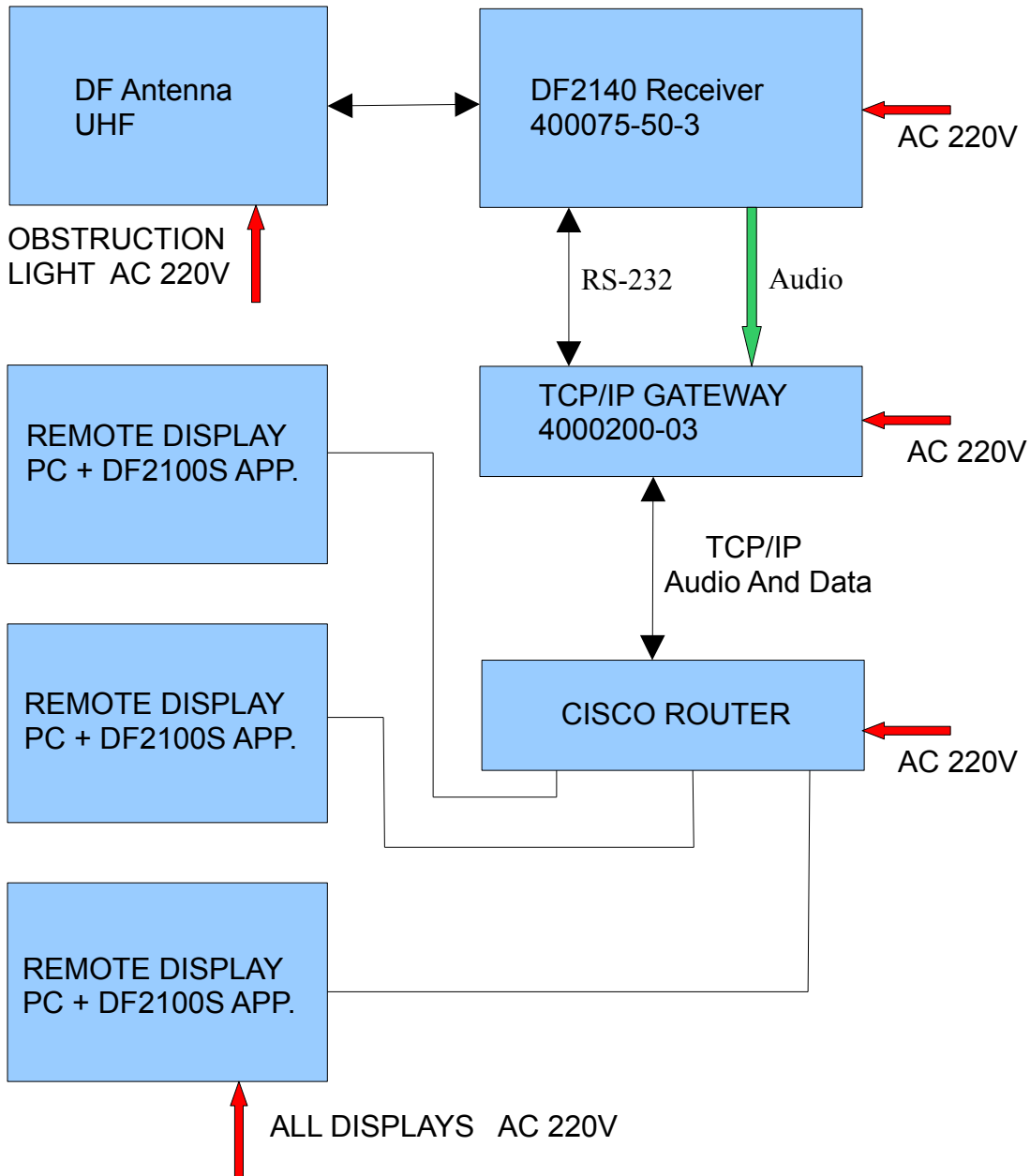


UHF Radio Direction Finding System based on DF2140 Receiver

1. General

DF2140 Receiver has a wide variety of peripherals available for various configurations of RDF Systems. The Block Diagram below shows just one possible application.

Direction Finding System Block Diagram

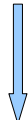


2. System Implementation



DF UHF 16 ARM ANTENNA
P/N 400040-35

Dipole Commutation
Signal



RF Signal 225-400 MHz
30 m max from DF2140

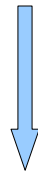


DF 2140 UHF RECEIVER
P/N 400075-50-3

RS-232 IN/OUT

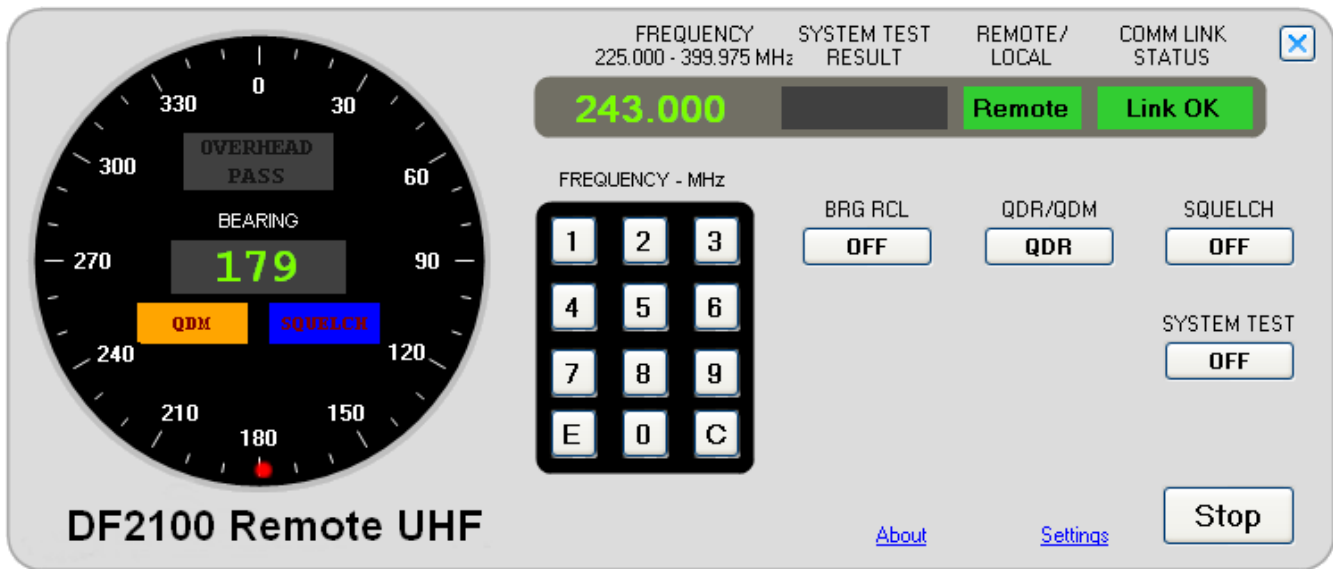


AUDIO OUT



TO TCP/IP GATEWAY
with static IP
P/N 4000200-03





REMOTE CONTROL/DISPLAY CONSOLE GRAPHICAL USER INTERFACE DF2100S App.

3. System Description

The radio signal from the antenna comes to the DF2140 receiver via low loss RF coax cable. The dipole switching is accomplished by multiwire cable connecting RF switch enclosed in the antenna hub and DF2140 Receiver.

The Receiver demodulates the radio signal received, calculates the bearing and sends it out via RS-232/USB port to TCP/IP gateway unit. It also sends out digitized audio.

The TCP/IP gateway unit performs the task of a server supplying bearing data and audio to logged in clients.

The clients use DF2100S application running on PC / Windows Xp / 7 to log in to the server.

The client receives all data available at DF2140 Receiver.

He also has a full control of the receiver.

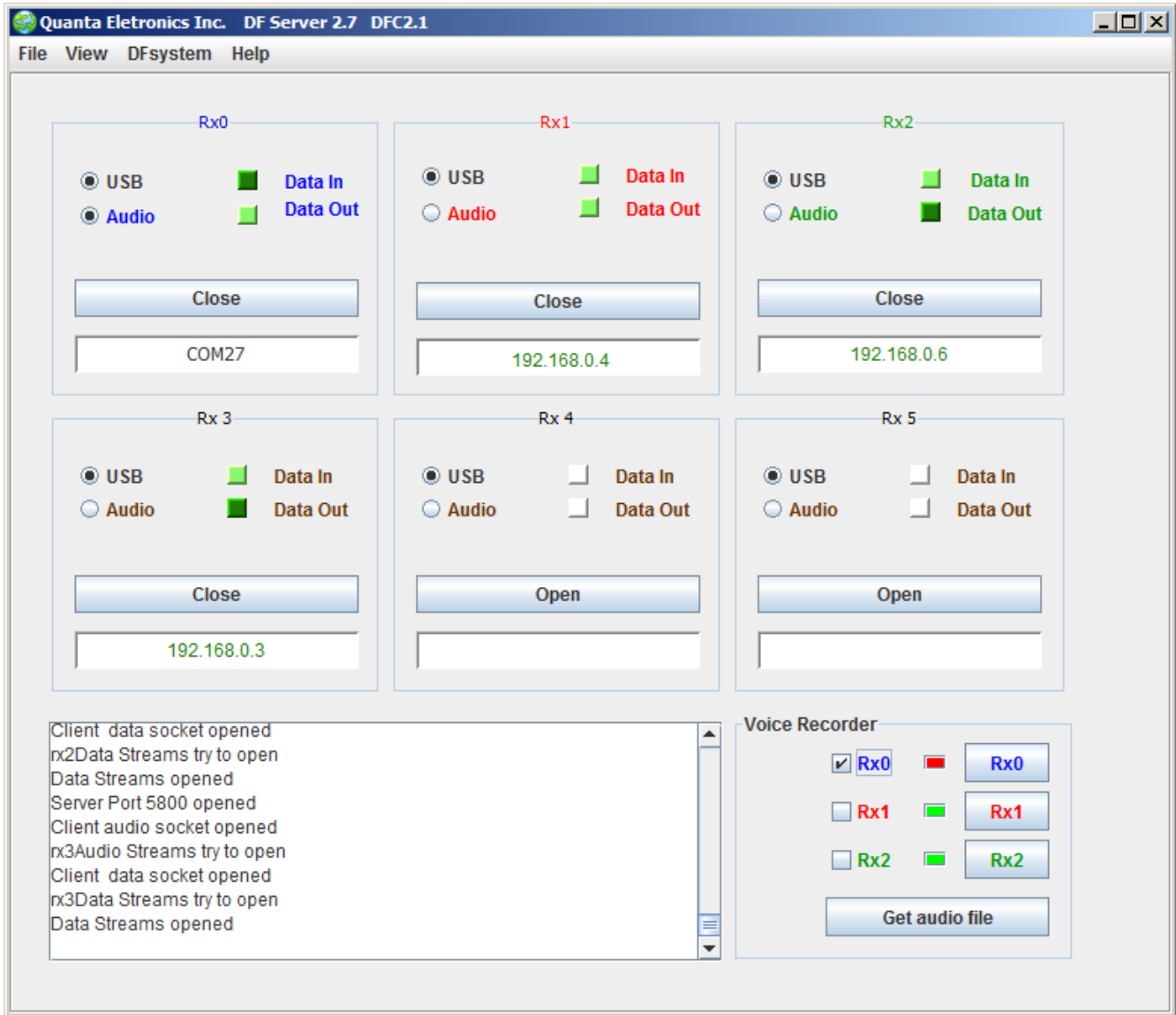
If network is not available, DF2140 Receiver can be connected to the Remote Control/Display Console via telephone lines.

NOTE

If telephone lines are to be used instead of TCP/IP the Remote Console has to be P/N 400087-42

4. DF Server P/N 4000200-3

The 4000200-3 TCP-IP gateway is a server that takes the audio and serial data from the DF2100 Receiver Processor and sends it to the logged in clients (Displays).



DF Server User Interface
Display connected to the 4000200-3

The Server is not normally connected to the Display, however for setup and troubleshooting purposes it can be.

The screen shot above shows the following information:

- The Server is receiving serial data from Rx0 on COM port 27
- Display #1 has logged in from IP address 192.0.4
- Display #2 has logged in from IP address 192.0.6
- Display #3 has logged in from IP address 192.0.3
- The audio from Receiver 0 is recorded

Note:

The audio is recorded when the Receiver Processor sends Signal Present information to the Server.

When the size of the recorded audio files exceeds selected by the user number allowed the Server automatically erases half of them starting from the oldest recorded, leaving the latest unerased.