



Application Note #5462

Connecting the HTplus to an MDS 9710

November 1, 2006

The purpose of this application note is to describe the settings and the wiring needed to connect an MDS 9710 to a serial port on an HTplus radio.

In the HTplus, the “Serial Gateway Setup” **Baud Rate**, **Data Bits**, **Parity**, **Stop Bits**, **Flow Control**, and **Interface** should be set to match the MDS radio’s port settings. The **Enable** checkbox for the HTplus serial port you are using should be checked, and a port number should be assigned in the **Port Number** box.

For the MDS 9710, and similar radios that require keying prior to transmitting, the **CD Mode** option should be set to **Keying** (Figure 1).

Figure 1

The screenshot displays the 'Serial Gateway Setup' interface for a FreeWave device. On the left is a navigation menu with options: Status, IP Setup, Serial Gateway Setup (highlighted), Radio Setup, Security, and Maintenance/Tools. The main area is titled 'Device Information' and shows: 900MHz FGRHT+, IP=192.168.111.198 * MAC=00:07:E7:86:E7:B4 * Serial#=8841140, and Logged In as Admin. Below this is the 'Terminal Server Configuration' section, which is divided into two columns: PORT 1 and PORT 2. Each column has an 'Enable' checkbox (checked for both), a 'Connect To' IP address field (192.168.111.198 for Port 1, 255.255.255.255 for Port 2), a 'Port Number' field (7000 for Port 1, 7001 for Port 2), and dropdown menus for 'Baud Rate' (19200), 'Data Bits' (8), 'Parity' (None), 'Stop Bits' (1), 'Flow Control' (None), 'CD Mode' (Keying for Port 1, Normal for Port 2), and 'Interface' (RS232). There are also checkboxes for 'Modbus RTU' (unchecked for both). At the bottom are buttons for 'Save Changes', 'Restore Factory Defaults', and 'Reboot'.

Terminal Server Configuration	
PORT 1	PORT 2
☒ Enable	☒ Enable
Connect To: 192.168.111.198	Connect To: 255.255.255.255
Port Number: 7000	Port Number: 7001
Baud Rate: 19200	Baud Rate: 19200
Data Bits: 8	Data Bits: 8
Parity: None	Parity: None
Stop Bits: 1	Stop Bits: 1
Flow Control: None	Flow Control: None
CD Mode: Keying	CD Mode: Normal
Interface: RS232	Interface: RS232
☐ Modbus RTU	☐ Modbus RTU

Buttons: Save Changes, Restore Factory Defaults, Reboot

To wire the MDS 9710 to a serial port on the HTplus, follow the following diagram:

Function	HTplus Pin Number	MDS 9710 Pin Number
CD	1	4 (RTS)
TX	2	2
RX	3	3
Signal Ground	5	7
RTS	7	5 (CTS)

