



Technical Support

TECHNICAL NOTE

Technical Note TN-NSC082

TM8100 1200 Baud Transparent Data

2 February 2004

(Note This is A Draft Version Only)

1200 Baud Transparent Data via the TM8100

Introduction

The TM8100 is able to send and receive Serial Data to and from Computer Terminal equipment (or Data Communication Equipment DCE) via an RS-232 connection.

As Standard the TM8100 is capable of Sending and Receiving 1200-baud data. With the use of a software key you can upgrade the radios to Tait High Speed Data at a rate of 12 Kbps.

Operational Description

The TM8100 has the ability to send as Standard 1200 baud Transparent data over the air, it takes the data input on it's serial port and processes it for over the air transmission then automatically transmits the data in a FFSK format.

It likewise receives these FFSK audio signals over the air, processes this back into a serial data format and transfers it out of its RxD (Receive Data) line.

This serial data can be fed into and out of the radio at a number of different points, using either the Microphone Socket, Aux Connector or the Options PCB connector.

The RxD and TxD signals out of the microphone socket and Aux connector 3v3 CMOS levels. This means that these ports are not RS232 compatible. A RS232 to TTL level is required to use the data lines.

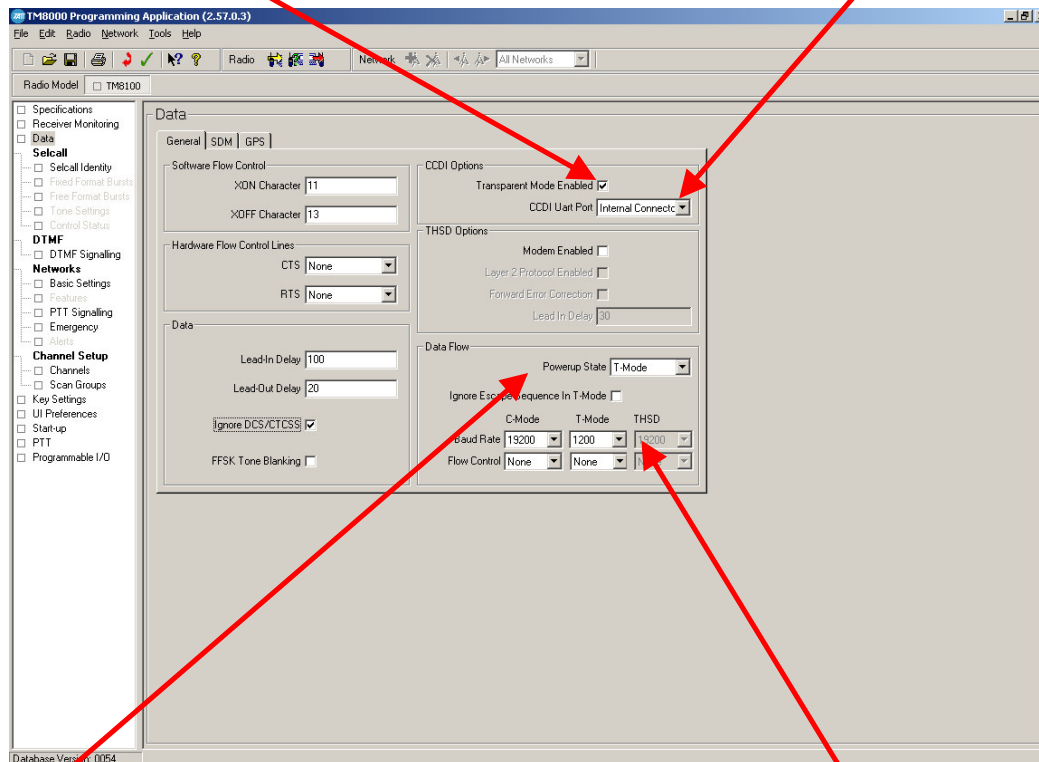
TMAA01-05 Options Extender Board

The TMAA01-05 Options extender board has an RS232 compliant asynchronous serial port. This board also give access to the entire internal general-purpose input and output lines. (IOP_GPIO).

Radio Programming Details

Select the Transparent Mode Enabled check box to Enable Transparent data.

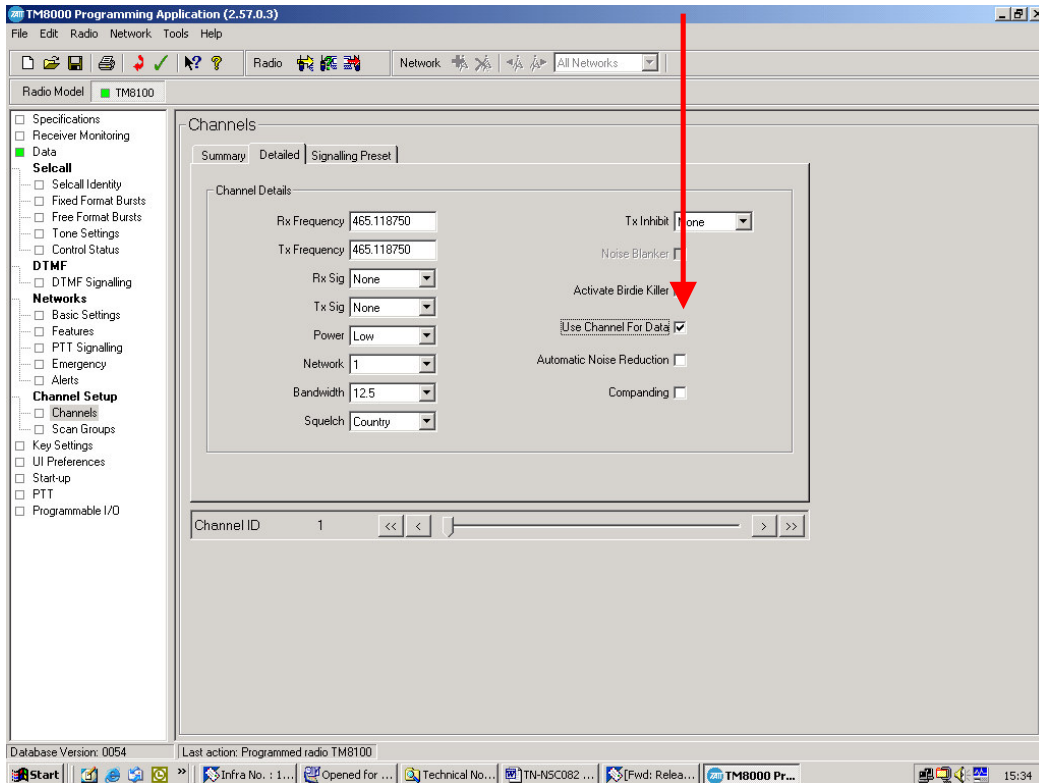
Select what Port you are going to use for the data port.



Change the Power up State to T-Mode so that when the radio powers up it starts up in Transparent Data mode.

Also set the correct baud rate between the radio and the computer equipment.

Go to the Channels page and then into the Detailed TAB, change the Use Channel for Data check box to Enabled. With this Enabled it bypassed certain stages in the radio's audio path. This includes the High Pass audio filter, audio compression and expansion, de-emphasis, and pre- emphasis.



If you require any clarification or further information please contact the National Support Centre on 0800 MOBILE (0800 662453).

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