

Chapter 8

Asynchronous Inverse Multiplexing Protocol

GENERAL

Asynchronous Inverse Multiplexing (AIMux), also known informally as asynchronous BONDING, is a protocol that permits asynchronous devices to pass data over one or two synchronous "BONDED" channels allowing data to be transferred at speeds up to 115.2 kbps.

The AIMux protocol supports a DTE rate of 115.2 kbps, as well as providing flow control to and from your computer. AIMux is not an error-correcting protocol. You may configure this option using AT commands or LocalMenu.

CONFIGURATION VIA AT COMMANDS

To configure the BitSURFR Pro for AIMux operation, enter:

AT%A2=3&M

Note

The AIMux command is actually the BONDING command (%A2=3) combined with the asynchronous DTE data mode command (&M).

The BitSURFR Pro also supports a Rate Multiplier option (@B0=n) that allows you to select the number of B-channels (1 or 2) to connect. By default, the BitSURFR Pro connects one B-channel. This keeps one channel open for voice calls. If you desire two channels, configure the Rate Multiplier for two B-channels (112 or 128 kbps). Enter:

AT@B0=2

To re-configure the Rate Multiplier for one B-channel (56 or 64 kbps), enter:

AT@B0=1

Set flow control, if desired, using the **AT\Qn** command. The flow control factory default is *bi-directional RTS/CTS*.



Note

The Quick Setup factory profile &FZ can be used to configure the BitSURFR Pro for the AIMux protocol. Note that the profile defaults to @B0=2, so if only one channel is required, @B0=1 should be added to the command string as follows: AT&F2@B0=1.

PLACING AN AIMUX BONDING CALL

You can place an AIMux call using any normal call placement method. The answering party must be set to run AIMux or the call will disconnect shortly after connection.



Note

To place an AIMux call, only one telephone number is required. If more than one channel is to be connected, the AIMux protocol automatically connects the second channel; you do not have to dial both numbers.

When establishing an AIMux connection, with the Rate Multiplier option set for 2 (**AT@B0=2**), the protocol will connect only the minimum number of channels required to support the lowest DTE speed. For example, if one PC or terminal is configured for 115.2 kbps and the other for 57.6 kbps, AIMux will connect only one channel. At higher rates, AIMux will connect both channels unless the Rate Multiplier option is set for 1 (**AT@B0=1**).



Note

If both B-channels are in use for an AIMux call, you will lose your voice capability for the duration of the call. Likewise, you cannot place an AIMux call using both channels if a voice call is already established.

If the DTE speeds are not the same, the PC or terminal configured for the higher speed must be configured for flow control. Otherwise, AIMux will not make the connection because loss of data is likely.

When an AIMux call is connected, the DTE status LED indicates the number of channels connected. The DTE status LED will flash fast

when only one channel is connected and will be steady when two channels are connected.

DISCONNECTING AN AIMUX CALL

Disconnecting a data call disconnects all channels associated with AIMux. If either channel is disconnected by the switch (service provider equipment), the entire call is disconnected by the BitSURFR Pro.

