Chapter 12
V.25bis Dialer Operation

GENERAL

V.25bis is an autodialer option used by synchronous Data Terminal Equipment (DTE) to control dialing and terminal adapter functions.

☞ **Note**
V.25bis Dialer is a synchronous protocol and may not be used by the BitSURFR Pro if it is attached to a PC or asynchronous terminal (unless an add-in synchronous card is installed in your PC). The BitSURFR Pro's synchronous features are designed primarily for various commercial applications.

Your BitSURFR Pro supports a subset of the CCITT V.25bis recommendation, primarily intended for the dialing and answering commands for HDLC orbisYNC modes of V.25bis operation.

SELECTING V.25BIS

The V.25bis option is selected using the **AT@P1** command. To select V.25bis, type one of the following AT commands:

- **AT@P1=VB** for V.25bisbisYNC mode.
- **AT@P1=VH** for V.25bis HDLC mode.

The DTR pin is used to activate the V.25bis dialer. When the DTR pin is turned on, use the dialer command setting to start the appropriate V.25bis mode.

☞ **Note**
The Quick Setup factory porfile &F3 can be used to quickly and easily configure the BitSURFR Pro for V.25bis HDLC operation.

When you select V.25bis dialer operation, use the DTE Speed option to configure the dialer port speed.

☞ **Note**
The V.25bis dialer option is not activated until the DTR signal has been turned off and then back on. This most

likely will occur when the asynchronous DTE used to enter AT commands is disconnected from the DTE port and the device which uses the V.25bis dialing feature is connected. Once the V.25bis dialer is activated, AT commands can no longer be entered.

OPERATION IN V.25BIS MODE

When the V.25bis option is enabled, most BitSURFR Pro options still apply. Selecting V.25bis forces the BitSURFR Pro into synchronous communication mode (regardless of the synchronous mode option). Only the DCD pin option setting applies when V.25bis is enabled and the BitSURFR Pro is off-line.

☞ **Note**
The BitSURFR Pro V.25bis HDLC mode operates only as ASCII NRZ.

REACTIVATING THE AT COMMAND PROCESSOR

The V.25bis dialer option and the AT command processor cannot be active at the same time. Subsequently, once the V.25bis dialer has been activated, the BitSURFR Pro will have to be "forced" back to its factory default configuration in order to reactivate the AT command processor. This is accomplished by placing the switch labeled 4 on the 4-position switch located on the rear of the BitSURFR Pro into the ON position and removing and reapplying power to the BitSURFR Pro. AT commands can now be entered and the V.25bis dialer will no longer be active.

DTE INTERFACE PINS

The function of some pins on the DTE port is different for V.25bis modes than in other synchronous modes.

DTR Pin Operation

For the BitSURFR Pro to accept V.25bis commands, the DTE must hold the DTR signal high. When configured for V.25bis dialing, the DTR pin option setting does not apply because the V.25bis specification explicitly defines how the dialer will respond to changes in DTR.

DCD Pin Operation

The default operation of the V.25bis dialer asserts the DCD pin when DTR is high (DCD follows DTR). Some devices may require DCD to be low until the connection is established. For those devices, the BitSURFR Pro can be configured only to raise DCD upon connection by setting the DCD pin option to NORMAL. The DCD pin option setting of ON is the default for CCITT V.25bis operation. Refer to the Terminal Interface and Pin Options section in Chapter 4 of this manual.

CTS Pin Operation

The BitSURFR Pro asserts the CTS pin when DTR is high (CTS follows DTR), except that CTS goes low during the connect sequence.

DSR Pin Operation

The BitSURFR Pro holds the DSR pin low until a connection has been established.

COMMAND MESSAGES

The following V.25bis commands are supported by the BitSURFR Pro.

Command	Description
CRN	Dial command.
CIC	Connect incoming calls.
DIC	Disregard incoming calls.

INDICATION MESSAGES

The following V.25bis indications are supported by the BitSURFR Pro.

Command	Description
CNX	Call connect indication.
INC	Incoming call indication.

RESPONSE MESSAGES

The BitSURFR Pro sends a response message immediately after receiving a V.25bis command message. Response message characters and functions are listed below.

Response	Function
VAL	Valid command.
INV	Invalid command. Command is invalid or inappropriate.
INVCU	Command unknown. Transmission error (parity, framing) occurred.
INVMS	Invalid Message Syntax. Command is too long; command contains invalid characters.
INVPS	Invalid Parameter Syntax. Wrong number of parameters; parameter contains invalid character or too many characters.
INVPV	Invalid Parameter Value. Parameter is out of range or is null.
CFICB	Call Failure, Local DCE busy.
CFI	Call Failure, Reason Unknown.