ADTRAN

ATLAS 800 SERIES DUAL VIDEO MODULE
User Manual

1200773L1   ATLAS 800 Series Dual Video Module

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To the Holder of the Manual

The contents of this manual are current as of the date of publication. ADTRAN reserves the right to change the contents without prior notice.

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NOTE   *Notes provide additional useful information.*

CAUTION   *Cautions signify information that could prevent service interruption.*

WARNING   *Warnings provide information that could prevent damage to the equipment or endangerment to human life.*

Affidavit Requirements for Connection to Digital Services

- An affidavit is required to be given to the telephone company whenever digital terminal equipment without encoded analog content and billing protection is used to transmit digital signals containing encoded analog content which are intended for eventual conversion into voiceband analog signals and transmitted on the network.
- The affidavit shall affirm that either no encoded analog content or billing information is being transmitted or that the output of the device meets Part 68 encoded analog content or billing protection specifications.
- End user/customer will be responsible for filing an affidavit with the local exchange carrier when connecting unprotected customer premise equipment (CPE) to 1.544 Mbps or subrate digital services.

Until such time as subrate digital terminal equipment is registered for voice applications, the affidavit requirement for subrate services is waived.

Affidavit for Connection of Customer Premises Equipment to 1.544 Mbps and/or Subrate Digital Services

For the work to be performed in the certified territory of _____ (telco name)

State of _____

County of _____

I, _____ (name), _____ (business address),

_____ (telephone number) being duly sworn, state:

I have responsibility for the operation and maintenance of the terminal equipment to be connected to 1.544 Mbps and/or _____ subrate digital services. The terminal equipment to be connected complies with Part 68 of the FCC rules except for the encoded analog content and billing protection specifications. With respect to encoded analog content and billing protection:

( ) I attest that all operations associated with the establishment, maintenance, and adjustment of the digital CPE with respect to analog content and encoded billing protection information continuously complies with Part 68 of the FCC Rules and Regulations.

( ) The digital CPE does not transmit digital signals containing encoded analog content or billing information which is intended to be decoded within the telecommunications network.

( ) The encoded analog content and billing protection is factory set and is not under the control of the customer.

I attest that the operator(s)/maintainer(s) of the digital CPE responsible for the establishment, maintenance, and adjustment of the encoded analog content and billing information has (have) been trained to perform these functions by successfully having completed one of the following (check appropriate blocks):

( ) A. A training course provided by the manufacturer/grantee of the equipment used to encode analog signals; or

( ) B. A training course provided by the customer or authorized representative, using training materials and instructions provided by the manufacturer/grantee of the equipment used to encode analog signals; or

( ) C. An independent training course (e.g., trade school or technical institution) recognized by the manufacturer/grantee of the equipment used to encode analog signals; or

( ) D. In lieu of the preceding training requirements, the operator(s)/maintainer(s) is (are) under the control of a supervisor trained in accordance with _____ (circle one) above.

I agree to provide _____ (telco's name) with proper documentation to demonstrate compliance with the information as provided in the preceding paragraph, if so requested.

_____Signature

_____Title

_____ Date

Transcribed and sworn to before me

This _____ day of _____, _____

_____
Notary Public

My commission expires:

_____

Federal Communications Commission Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio frequencies. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTE *Shielded cables must be used with this unit to ensure compliance with Class A FCC limits.*

WARNING *Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

Canadian Emissions Requirements

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Cet appareil numérique respecte les limites de bruits radioelectriques applicables aux appareils numériques de Class A prescrites dans la norme sur le materiel brouilleur: "Appareils Numériques," NMB-003 edictee par le ministre des Communications.

Warranty and Customer Service

ADTRAN will repair and return this product within five years from the date of shipment if it does not meet its published specifications or fails while in service. For detailed warranty, repair, and return information refer to the ADTRAN Equipment Warranty and Repair and Return Policy Procedure.

Return Material Authorization (RMA) is required prior to returning equipment to ADTRAN.

For service, RMA requests, or further information, contact one of the numbers listed at the end of this section.

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ADTRAN warrants that for five years from the date of shipment to Customer, all products manufactured by ADTRAN will be free from defects in materials and workmanship. ADTRAN also warrants that products will conform to the applicable specifications and drawings for such products, as contained in the Product Manual or in ADTRAN's internal specifications and drawings for such products (which may or may not be reflected in the Product Manual). This warranty only applies if Customer gives ADTRAN written notice of defects during the warranty period. Upon such notice, ADTRAN will, at its option, either repair or replace the defective item. If ADTRAN is unable, in a reasonable time, to repair or replace any equipment to a condition as warranted, Customer is entitled to a full refund of the purchase price upon return of the equipment to ADTRAN. This warranty applies only to the original purchaser and is not transferable without ADTRAN's express written permission. This warranty becomes null and void if Customer modifies or alters the equipment in any way, other than as specifically authorized by ADTRAN.

EXCEPT FOR THE LIMITED WARRANTY DESCRIBED ABOVE, THE FOREGOING CONSTITUTES THE SOLE AND EXCLUSIVE REMEDY OF THE CUSTOMER AND THE EXCLUSIVE LIABILITY OF ADTRAN AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES (EXPRESSED OR IMPLIED). ADTRAN SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, INCLUDING (WITHOUT LIMITATION), ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THIS EXCLUSION MAY NOT APPLY TO CUSTOMER.

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Customer Service, Product Support Information, and Training

ADTRAN will repair and return this product if within five years from the date of shipment the product does not meet its published specification or the product fails while in service.

A return material authorization (RMA) is required prior to returning equipment to ADTRAN. For service, RMA requests, training, or more information, use the contact information given below.

Repair and Return

If you determine that a repair is needed, please contact our Customer and Product Service (CAPS) department to have an RMA number issued. CAPS should also be contacted to obtain information regarding equipment currently in house or possible fees associated with repair.

> CAPS Department   (256) 963-8722

Identify the RMA number clearly on the package (below address), and return to the following address:

> ADTRAN Customer and Product Service
> 901 Explorer Blvd. (East Tower)
> Huntsville, Alabama 35806
>
> RMA # _____

Pre-Sales Inquiries and Applications Support

Your reseller should serve as the first point of contact for support. If additional pre-sales support is needed, the ADTRAN Support web site provides a variety of support services such as a searchable knowledge base, latest product documentation, application briefs, case studies, and a link to submit a question to an Applications Engineer. All of this, and more, is available at:

> http://support.adtran.com

When needed, further pre-sales assistance is available by calling our Applications Engineering Department.

> Applications Engineering   (800) 615-1176

Post-Sale Support

Your reseller should serve as the first point of contact for support. If additional support is needed, the ADTRAN Support web site provides a variety of support services such as a searchable knowledge base, updated firmware releases, latest product documentation, service request ticket generation and trouble-shooting tools. All of this, and more, is available at:

http://support.adtran.com

When needed, further post-sales assistance is available by calling our Technical Support Center. Please have your unit serial number available when you call.

Technical Support   (888) 4ADTRAN

Installation and Maintenance Support

The ADTRAN Custom Extended Services (ACES) program offers multiple types and levels of installation and maintenance services which allow you to choose the kind of assistance you need. This support is available at:

http://www.adtran.com/aces

For questions, call the ACES Help Desk.

ACES Help Desk   (888) 874-ACES (2237)

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The Enterprise Network (EN) Technical Training Department offers training on our most popular products. These courses include overviews on product features and functions while covering applications of ADTRAN's product lines. ADTRAN provides a variety of training options, including customized training and courses taught at our facilities or at your site. For more information about training, please contact your Territory Manager or the Enterprise Training Coordinator.

Training Phone   (800) 615-1176, ext. 7500
Training Fax   (256) 963-6700
Training Email   training@adtran.com

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Chapter 1   Introduction

VIDEO MODULE OVERVIEW

The Video Module is a member of the ATLAS family of integrated access products, providing two independent video ports, each including an RS-366 dialing interface (DB-25) and a synchronous DTE port (interface connector determined by custom cable).

The Video Module combines with the ATLAS 800 Series base unit and other ATLAS modules to provide a comprehensive, cost-effective solution for any organization supporting an ISDN videoconferencing network. As many Video Modules can be installed in a system as can be physically accommodated in the ATLAS 800 Series chassis. Figure 1-1 shows a sample application.
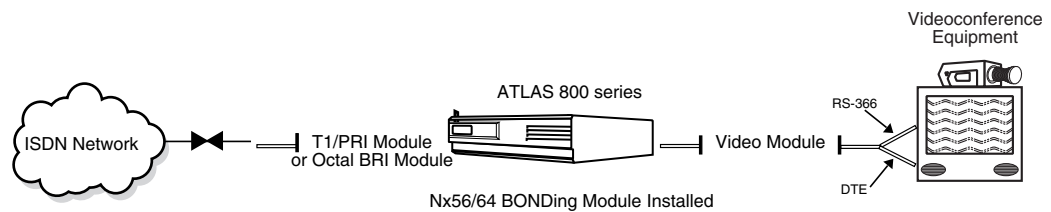
Figure 1-1. Video Module System

Used in conjunction with the Nx56/64 BONDing Module, the ATLAS 800 Series system (with an installed Video Module) will be able to terminate ISDN PRI or BRI circuits (using the Quad T1/PRI or Octal BRI Modules, respectively) and provide high-bandwidth video data streams to a video codec.

FUNCTIONAL DESCRIPTION

The Video Module installs in any available option slot in the ATLAS 800 Series chassis. You can view the status of the module itself, as well as the circuits to which it interfaces. The terminal menus are accessible using a VT100 terminal connection (through the **CONTROL** port) or a Telnet session (through the Ethernet port). Use the terminal menu to configure the Video Module and to download application software.

FEATURES

Features of the Video Module are listed here:

- Two independent video ports; each includes an RS-366 dialing interface and a DTE synchronous port
- Adapter cables are available to provide the following DTE interfaces: V.35, RS-449, EIA-530
- Storage for 10 dial numbers and associated configuration parameters
- Type II and Type III RS-366 interface support

VIDEO MODULE SPECIFICATIONS

Each DTE synchronous port of the Video Module conforms to the following specifications:

Operating Temperature

Operation: 0° C to 50° C

Storage: -20° C to 70° C

Relative Humidity: To 95% Noncondensing

Line Rate

56 kbps to 1472 kbps (in 56k or 64k steps)

> **NOTE**
>
> *Data rates greater than 64kbps require the use of the Nx56/64 BONDing module (P/N 1200262L1).*

Interface Types (using custom cables)

- V.35   Cable P/N 1200774L1
- EIA-530   Cable P/N 1200774L2
- RS-449   Cable P/N 1200774L3

Tests

Power-on, circuit self-test, port loopback (internal toward system), and bilateral local loopback
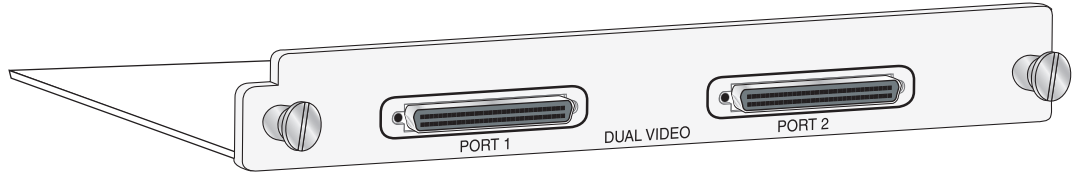
Each RS-366 dialing interface of the Video Module conforms to the following specifications:

Interface Types

Type II or Type III

PHYSICAL DESCRIPTION

The Video Module (see Figure 1-2) plugs into any available option slot in the rear of the ATLAS 800 Series chassis.

Figure 1-2. Video Module

The label under each 68-pin connector refers to the port on the Video Module.

Chapter 2   Installation

BEFORE INSTALLING THE VIDEO MODULE

Carefully unpack and inspect the Video Module for shipping damages. If you suspect damage occurred during shipping, file a claim immediately with the carrier and then contact ADTRAN Technical Support (see the front pages of this manual for pertinent information). If possible, keep the original shipping container for returning the Video Module for repair or for verification of shipping damage.

Shipping Contents

The ADTRAN shipment includes the following items:

- Video Module
- Video Module Quick Start Guide
- Video Module *User Manual* (insert into the *ATLAS 800 Series User Manual*)

And two of the following:

- V.35 Cable (System P/N 4200773L1, Cable P/N 1200774L1)
- EIA-530 Cable (System P/N 4200773L2, Cable P/N 1200774L2)
- RS-449 Cable (System P/N 4200773L3, Cable P/N 1200774L3)

INSTALLING THE VIDEO MODULE

Figure represents the actions required to properly install the Video Module, as described in the Step/Action table below.
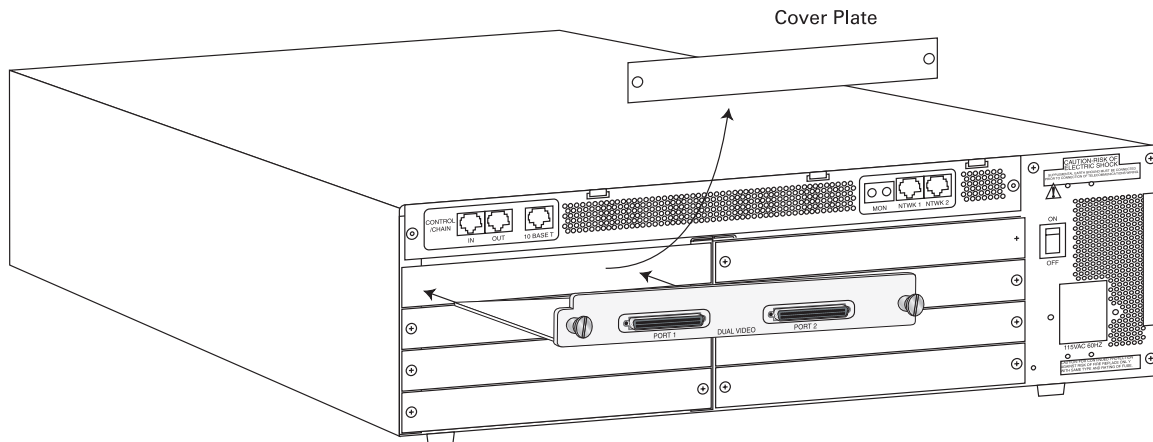
Figure 2-1. Installing the Video Module

Instructions for Installing the Video Module	
Step	**Action**
1	Remove the cover plate from the appropriate option slot in the ATLAS 800 Series chassis rear panel.
2	Slide the Video Module into the option slot until the module is firmly positioned against the front of the chassis.
3	Secure the thumbscrews at both edges of the module.
4	Connect the cables to the associated device(s).
5	Complete installation of remaining modules and Base Unit as specified in the Installation chapter of the *ATLAS 800 Series User Manual*.

NOTE *To ensure that the thumbscrews are securely fastened, use a screwdriver to tighten them.*

WIRING

Several DTE interface options are available, depending on the system part number ordered. The following tables provide the pinouts for all DTE interfaces.

Connector Type   V.35 (System P/N 4200773L1)

Table 2-1. V.35 Winchester Pinout

Pin	CCITT	Description
A	101	Protective ground (PG)
B	102	Signal ground (SG)
C	105	Request to send (RTS) from DTE
D	106	Clear to send (CTS) to DTE
E	107	Data set ready (DSR) to DTE
F	109	Received line signal detector (DCD) to DTE
H	—	Data terminal ready (DTR) from DTE
J	—	Ring indicator (RI)
R	104	Received data (RD-A) to DTE
T	104	Received data (RD-B) to DTE
V	115	RX clock (RC-A) to DTE
X	115	RX clock (RC-B) to DTE
P	103	Transmitted data (TD-A) from DTE
S	103	Transmitted data (TD-B) from DTE
Y	114	TX clock (TC-A) to DTE
AA	114	TX clock (TC-B) to DTE
U	113	External TX clock (ETC-A) from DTE
W	113	External TX clock (ETC-B) from DTE
NN	—	Test mode (TM) to DTE - (Not Supported)

Connector Type   EIA 530 (System P/N 4200773L2)

Table 2-2. EIA-530 Connector Pinout

Pin	Signal Description	Pin	Signal Description
1	Shield (Ground)	13	Clear to Send (B)
2	Transmit Data (A)	14	Transmit Data (B)
3	Received Data (A)	15	Transmit Clock (A)
4	Request to Send (A)	16	Received Data (B)
5	Clear to Send (A)	17	Receive Clock (A)
6	DCE Ready (A)	18	Not Used
7	Signal Ground	19	Request to Send (B)
8	Carrier Detect (A)	20	DTE Ready (A)
9	Received Clock (B)	21	Not Used
10	Carrier Detect (B)	22	DCE Ready (B)
11	Ext. Transmit Clock (B)	23	DTE Ready (B)
12	Transmit Clock (B)	24	Ext. Transmit Clock (A)
		25	Not Used

Connector Type   RS-449 (System P/N 4200773L3)

Table 2-3. RS-449 Pinout

Pin	Signal Description	Pin	Signal Description
1	Shield (Ground)	19	Signal Ground
2	Not Used	20	Not Used
3	Not Used	21	Not Used
4	Transmit Data (A)	22	Transmit Data (B)
5	Transmit Clock (A)	23	Transmit Clock (B)
6	Received Data (A)	24	Receive Data (B)
7	Request to Send (A)	25	Request to Send (B)
8	Receive Clock (A)	26	Receive Clock (B)
9	Clear to Send (A)	27	Clear to Send (B)
10	Local Loopback - (Not Supported)	28	Not Used
11	DCE Ready (A)	29	DCE Ready (B)
12	DTE Ready (A)	30	DTE Ready (B)
13	Carrier Detect (A)	31	Carrier Detect (B)
14	Remote Loopback - (Not Supported)	32	Not Used
15	Ring Indicator	33	Not Used
16	Not Used	34	Not Used
17	Ext. Transmit Clock (A)	35	Ext. Transmit Clock (B)
18	Test Mode - (Not Supported)	36	Not Used
		37	Not Used

Connector Type   RS-366 (DB-25)

Table 2-4. RS-366 Connector Pinout

Pin	Signal Description	Pin	Signal Description
1	Shield (Ground)	14	Digit Signal Circuit 1 (NB1)
2	Digit Present (DPR)	15	Digit Signal Circuit 2 (NB2)
3	Abandon Call and Retry (ACR)	16	Digit Signal Circuit 4(NB4)
4	Call Request (CRQ)	17	Digit Signal Circuit 8(NB8)
5	Present Next Digit (PND)	18	Receive Common (RC)
6	Power Indication (PWI)	19	Send Common (SC)
7	Signal Ground (SG)	20-21	Not Used
8-12	Not Used	22	Data Link Occupied (DLO)
13	Distant Station Connection (DSC)	23-25	Not Used

POWER UP AND INITIALIZATION

The Video Module requires no initialization input during the power-up sequence, as described in the *ATLAS 800 Series User Manuals*. Any previously configured setting for the Video Module is automatically restored upon power-up.

Failed Self-Test

If the Video Module fails self-test, a message will be displayed in the terminal menu self-test log during power-up. See the appropriate *ATLAS 800 Series User Manual* for details.

Operation Alarms

The red ALARM LED (located with the Module LEDs on the front panel) illuminates when an alarm condition is detected.

Chapter 3 — Operation

OVERVIEW

You can control and configure the Video Module from a variety of sources, including the following:

- The terminal menus, allowing detailed configuration, status, and diagnostics
- SNMP, primarily for reporting alarm conditions and system status

The remainder of this section describes the menu items presented when managing the Video Module via the terminal menu.

Access the terminal menu using either a VT-100 terminal attached to the ATLAS 800 Series Base Unit's control port or a Telnet session established through the Base Unit's Ethernet port. The appropriate *ATLAS 800 Series User Manual* provides detailed instructions on the operation of each of these management approaches.

> **NOTE**
>
> *To edit items in the terminal menu, you must have the appropriate password level. Each menu description in this section indicates the password level required for write and read access. See "Access Passwords" in the appropriate **ATLAS 800 Series User Manual** for detailed information on working with passwords. Security level 0 users can view and edit every available field. Security level 5 users can view any field but cannot edit.*

TERMINAL MENU STRUCTURE

ATLAS 800 Series uses a hierarchical menu structure to provide access to all of its features. The top-most menu level leads to submenus which are grouped by functionality. All menu items display in the terminal window. To access the Video Module, activate the **MODULES** menu. The following sections describe the menu items for the **MODULES** menu.

> **NOTE**
>
> *Refer to the appropriate **ATLAS 800 Series User Manual** for detailed instructions on navigating through the terminal menu.*

MODULES

The ATLAS 800 Series system controller automatically detects the presence of the Video Module when it is installed in the system. To see the menus for the Video Module via the terminal menu, use the arrow keys to scroll to the Modules menu and press **Enter** to access the module choices. Figure 3-1 shows the Modules menu (see also the menu tree in Appendix C). The following sections describe all the Modules' menu options.

Figure 3-1. Modules Menu

SLT

Read security: 5
Displays the number of the available slots in the ATLAS 800 Series chassis. Slot 0 refers to the ATLAS 800 Series unit. This field is read-only.

TYPE

Write security: 3; Read security: 5
Displays the type of module actually installed in the slot or the type of module you plan to install in the slot. If a Video Module is installed, the Type field automatically defaults to **VIDEO** (the Video Module). You can use this field to preconfigure a system before actually installing modules by simply specifying the module that you want to install in each slot.

> **NOTE**
> **TYPE** *automatically displays the name of an installed module. If you want to change this field to a different type of module, you must set* **TYPE** *to* **EMPTY** *before selecting the other module.*

MENU

Displays additional status and configuration menus for the selected module. (To access the submenus for this item, use the arrow keys to scroll to the **MENU** column for the module you want to edit, and press **Enter**.) For detailed information on each submenu item, see the section See "Modules/Menu" on page 30.

ALARM   Read security: 5
                            Displays an alarm condition on the Video Module. Press **Enter** in this field to acti-
                            vate the menu.

TEST   Read security: 5
                            Displays test name if the Video Module is executing a test. Press **Enter** in this field
                            to activate the menu.

STATE   Displays module status as either **ONLINE** or **OFFLINE**. Even though a module is
                            physically installed, it must be marked as online for it to be considered an available
                            resource. This field allows an installed module to be marked as offline, which may
                            be useful in system troubleshooting. If you choose **OFFLINE**, the module will not be
   in alarm condition but will display **OFFLINE**.

> NOTE
> *Once a module is installed, **STATE** must be set to **ONLINE** for the
> ATLAS 800 Series unit to use the module for any data bandwidth.*

STATUS   This read-only field provides status information on the Video Module. The follow-
                            ing messages may display:

    ONLINE   The module is enabled, and is responding to the system controller's status polls.
                            This is the normal response of the system.

    NO RESPONSE   The module is enabled, but is not responding to the system controller's status polls.
                            This response indicates either a problem in the system or that the module is not in-
                            stalled.

    EMPTY   The system controller has not detected the presence of a module in the slot, nor has
                            a module been manually enabled for this option slot.

    OFFLINE   The module is installed, but has been taken offline by a user. The module is still re-
                            sponding to controller polls.

    OFFLINE/NO   The module is installed, but has been taken offline by a user. The module is not re-
    RESPONSE   sponding to polls.

REV   This read-only field displays the hardware revision of the Video Module.

MODULES/MENU   Figure 3-2 shows the menu options available for the Video Module (see also the menu tree in Appendix C). The following sections describe these options.
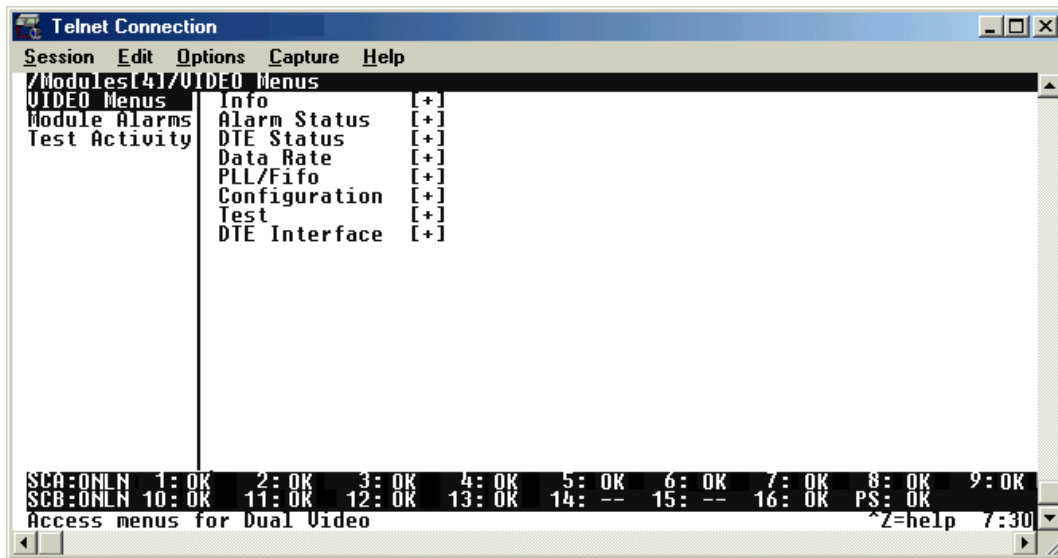
Figure 3-2. Video Module Menu Options

VIDEO MENUS   Accesses additional submenus.

INFO   Provides information about module part number, serial number , and board revision.

PART NUMBER

Displays the part number of the module (read only).

SERIAL NUMBER

Displays the serial number of the module (read only).

BOARD REVISION

Displays the PCB revision (read only).

ALARM STATUS   Displays the current alarm state of the DTE interface including the following:

SLIP
A rate mismatch exists between the DTE clock and the network-side clock (as set by DS0 assignment).

PLL
The Video Module DTE port is not able to lock onto the clock provided by the network interface.

ZERO
The DTE is sending an excessive number of consecutive zeroes to the network interface.

NO EXT CLK
The DTE is not providing an external transmit clock. This alarm displays only if the Video Module DTE port is configured to get its transmit clock from the DTE.

DTE STATUS Shows the status of key DTE interface signals. An asterisk (*) indicates the presence of a signal and a hyphen (-) indicates no signal present.

PRT Operating port number

The following signals are monitored (these options are read-only):

RTS Request to send from DTE

CTS Clear to send to DTE

DTR Data terminal ready from DTE

DSR Data set ready to DTE

DCD Data carrier detect to DTE

RI Ring indicate to DTE

TD Transmit data from the DTE

RD Receive data toward the DTE

EC External clock present

DATA RATE Displays the data rate at which each Video Module DTE port is currently operating. A port's data rate is determined by the number of B channels assigned to it and the rate per channel associated with the active call.

PLL/FIFO   Displays the Phase Lock Loop (PLL) and FIFO status.

> **PORT**   Indicates the operating port.
>
> **PLL/FIFO**   Displays the state of the PLL and FIFO systems.
>
> **LOCK**   PLL is locked (This is required to transfer data.)
>
> **RXE**   Receive data FIFO empty
>
> **RXF**   Receive data FIFO full
>
> **TXE**   Transmit data FIFO empty
>
> **TXF**   Transmit data FIFO full

CONFIGURATION   All of the following configurable parameters apply to the individual Video Module DTE ports.

PRT
Displays the port number.

PORT NAME
Accepts any alpha-numeric name up to 16 characters long, to uniquely identify each DTE port on the Video Module.

CLK +/-
Controls the clock used by the ATLAS 800 Series to accept the transmit (TX) data from the DTE. This is usually set to **NORMAL**. If the interface cable is long, causing a phase shift in the data, the clock can be set to **INVERTED**. This switches the phase of the clock, which compensates for a long cable.

DATA
Controls the inverting of the DTE data. This inversion can be useful when operating with a high-level data link control (HDLC) protocol (often used as a means to ensure 1s density). Select either **NORMAL** or **INVERTED**. Data inversion configuration must match on both ends of the circuit.

CTS
Determines the behavior of the Clear To Send (CTS) signal. If set to **NORMAL**, CTS will follow the value of Request To Send (RTS). If set to **FORCED ON**, CTS will always be asserted.

DCD
Determines the behavior of the Data Carrier Detect (DCD) signal, also called RLSD on some interfaces. If set to **NORMAL**, DCD will generally be asserted when the interface is capable of passing data (consult the appropriate ATLAS 800 Series User Manual for exact conditions.) If set to **FORCED ON**, DCD will always be asserted.

DSR
Determines the behavior of the Data Set Ready (DSR) signal. If set to **NORMA**l, DSR will generally be asserted when the interface is capable of passing data. If set to **FORCED ON**, DSR will always be asserted.

DTR

Selects the response to DTR transitions. The following table lists the configuration options for the DTR parameter with respect to the current configuration for the module in the Dial Plan.

Table 3-1. DTR Descriptions

Dial Method (Dial Plan)	DTR Setting	Description
DIAL ON DTR	Recognize DTR	Call is dialed when DTR is high and disconnects when DTR goes low.
	Ignore DTR	Call will never connect.
RS-366	Recognize DTR	Call is dialed if DTR is already high and disconnected when DTR goes low.
	Ignore DTR	Call is dialed regardless of DTR state and must be disconnected manually.
MANUAL	Recognize DTR	Call is dialed if DTR is already high and disconnected when DTR goes low.
	Ignore DTR	Call is dialed regardless of DTR state and must be disconnected manually.

0 INH

When the port detects an uninterrupted string of 0s being transmitted for more than one second, setting this parameter to **ON** will cause the ATLAS 800 Series to send 1s toward the network.

TEST   These options initiate different types of tests and display test results.

LOOPBACK

The Dual Video Module supports both local and remote loopbacks. Selecting **LOCAL LOOPBACK** or **REMOTE LOOPBACK** initiates the appropriate loopback sequence.

NO LOOPBACK
No active loopback

LOCAL LOOPBACK
Activates both a local loopback (back toward the DTE) and a port loopback (toward the network)

REMOTE LOOPBACK
Initiates a local loopback request sent to the remote Dual Video Module. This allows for end-to-end circuit test.

> **NOTE**   The **REMOTE LOOPBACK** option is only supported for Dual Video Module to Dual Video Module applications.

LOOPBACK STATUS
This read-only option indicates a port's current loopback status by displaying any of the following status messages:

> **NO LOOPBACK ACTIVE**
>
> **PORT LOOPBACK ACTIVE**
>
> **LOOPING UP REMOTE UNIT...**
>
> **REMOTE UNIT LOOPED BACK**
>
> **LOOPING DOWN REMOTE UNIT...**
>
> **REMOTE LOOPUP FAILED**
>
> **PORT LOOPED FROM REMOTE SOURCE**

511
Controls the activation of the 511 test pattern generator and detector. 511 pattern is generated inward through the ATLAS System.

511 RESULT
Displays the results of the 511 test. This option is read-only. Clear these results by pressing **Enter** when CLR is selected.

> **NONE**
> Pattern is not synchronized
>
> **LOS**
> At one point the pattern was synchronized, but is currently not synchronized
>
> **SYNC**
> Pattern is synchronized
>
> **ES**
> Number of seconds with at least one bit error
>
> **CLR**
> Clears error counters on test pattern results menu.
>
> **INJ**
> Injects errors into transmitted test pattern.

DTE INTERFACE Configures the DTE port of the Video Module for the appropriate interface type. Select the parameters matching the interface cable being used.

PRT
Displays the port number.

DTE INTERFACE
Configures the DTE port interface type. The following options are available:

> **AUTO**
> The ATLAS 800 Series will automatically detect the interface type. The cable must be connected before the interface can be determined.
>
> **EIA-530**
> Configures the interface for EIA-530 use.

V.35
Configures the interface for V.35 use.

RS-449
Configures the interface for RS-449 use.

LOOPBACK
Configures the interface to emulate a connected loopback cable.

CURRENT DTE TYPE   Displays the current configuration of the Video Module DTE Interface.

MODULE ALARMS   Provides a shortcut to the **ALARM** menu (see See "Alarm Status" on page 30.).

TEST ACTIVITY   Provides a shortcut to the **TEST** menu (see See "Test" on page 33.)

ATLAS FEATURES USED WITH VIDEO MODULE OPTIONS

Two additional ATLAS 800 Series menu items can operate in conjunction with the
Video Module: **FACTORY RESTORE** and **RUN SELFTEST**.

FACTORY RESTORE

You can restore the factory default settings for an Video Module by pressing **F** either while the cursor is over the **SLT** number (this action restores the factory settings
for all of the module options) or while the cursor is over an individual field (this action restores factory settings only for the particular field).

RUN SELFTEST

RUN SELFTEST, a submenu of the ATLAS 800 Series main menu item **TEST**, executes both the Video Module internal test and the ATLAS 800 Series internal test.
For additional information on **RUN SELFTEST**, see the *ATLAS 800 Series User Manual*.

When **RUN SELFTEST** displays, place the cursor on it and press **Enter** to execute
the test. The unit continuously changes the display on the self-test log screen until
all test results are shown.

Dial Plan Interface Configuration

The **IFCE CONFIG** option for the **DIAL PLAN** menu (see Figure A-1) sets configuration parameters for the endpoint. These parameters vary by the type of port selected. The following section describes the configuration options available for the ATLAS 800 Series Video Module. To access these options, select **DIAL PLAN** from the ATLAS menu.

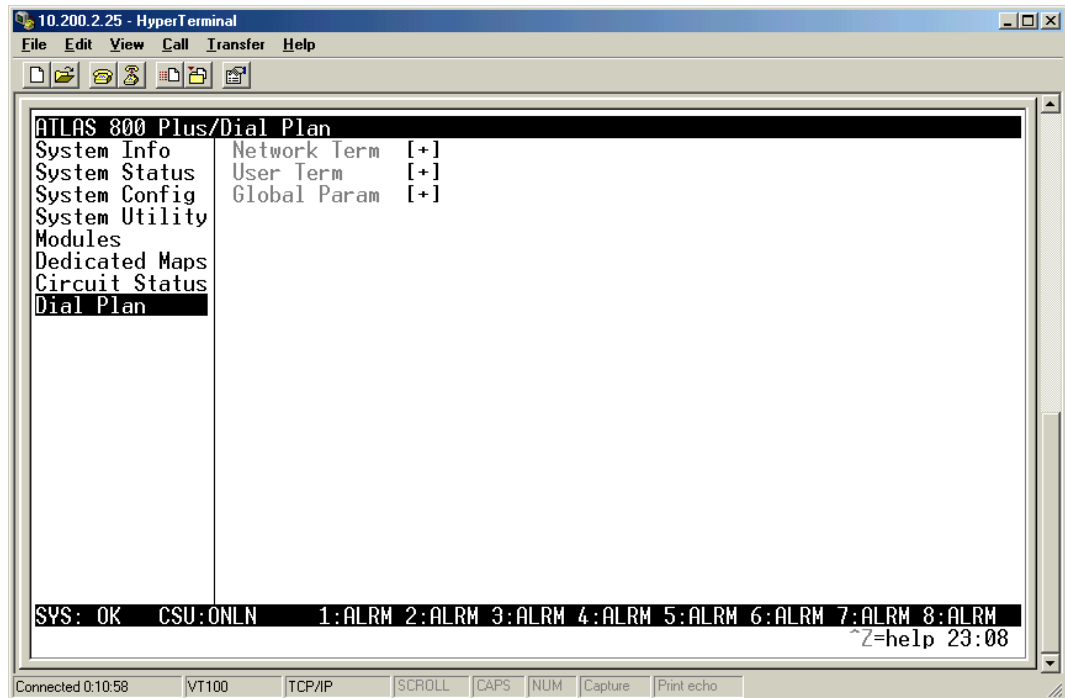> ![NOTE] *The Video Module is only available for User Term applications*

Figure A-1. Dial Plan Menus

ATLAS 800 SERIES VIDEO MODULE: USER TERMINATION

The ATLAS 800 Series Video Module acts like the network while interfacing to user equipment (video equipment). When you are working in the **USER TERM** section of the **DIAL PLAN** menu and **SLT** is defined as a Video Module, the following interface configuration options are available:

DIALING METHOD

Write Security: 3; Read Security: 5
Selects the method of dialing outbound calls from this endpoint.

RS-366   Configures the RS-366 dialing interface (associated with this port) to initiate the call.

MANUAL   All outbound calls on this interface must be manually initiated and disconnected using the dial plan menus.

ON DTR   An outbound call to the number entered in the **DIAL NUMBER** field will be initiated when the Data Transmit Ready (DTR) signal goes high (or active). Calls will be disconnected upon a loss of DTR.

The following menus are available only when the **DIALING METHOD** is **RS-366**.

RS-366 TYPE

Write Security: 3; Read Security: 5
Specifies the interface type for the RS-366 dialing port.

TYPE II   RS-366 is used to select and dial a number entered in the **STORED NUMBERS** table.

TYPE III   RS-366 is used to specify the number to dial and the call parameters using the ADTRAN Smart Dial String format (see Appendix B, Smart Dial String Formats, for more details.)

DIAL AFTER

Write Security: 3; Read Security: 5
Some RS-366-capable devices will terminate a dial string with an End-Of-Number (EON) character. If the device does not transmit such a character, the ATLAS will use this value to assume the number is complete and proceed. The following options are available:

1 SEC OR EON	**10 SEC OR EON**
2 SEC OR EON	**20 SEC OR EON**
5 SEC OR EON	**WAIT FOR EON**

**STORED
NUMBERS**

Write Security: 3; Read Security: 5
Enter the numbers to dial using the RS-366 Type II dialing interface in the stored numbers list. This list can contain up to 10 stored numbers.

#

Entry number (1-10)

DIAL

Activator to dial or disconnect a call to the specified number.

DESCRIPTION

Alphanumeric character string (up to 20 characters) used as a descriptor for the number entry. Enter a useful description such as VCon5thFloor(Corp).

DIGITS

Number string (up to 22 digits) to dial.

TYPE

Specifies whether the data rate on the call will be 56 or 64 kbps.

DIAL AS

Specifies the call type used to populate the Bearer Capability Information Element in the ISDN Call Setup Message. Options include: **DIGITAL** (Data), **VOICE** (speech), or **AUDIO** (3.1 kHz audio).

SRC ID

Defines the source ID assigned to this call to be used for internal ATLAS routing. Source IDs simplify the creation of a dial plan in applications where the criterion for switching calls to a certain endpoint is a function of which endpoint originated the call.

Zero (0) is the default ID for all endpoints and all accept numbers. If all default **SOURCE ID** values are not modified, calls are routed based only on the dialed number.

Multiple endpoints may have the same **SOURCE ID**. When creating the CALL ACCEPT list, specify a **SOURCE ID** (s) as well as a dialed number or range of dialed numbers to accept on that endpoint.

MIN DS0S

This option will specify the minimum number of DS0s necessary for this switched call. If the call is negotiated and the minimum DS0s value is not met, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MAX DS0S

This option will specify the maximum number of DS0s allowed for this switched call. If the call is negotiated and the maximum DS0s value is not acceptable to the answering equipment, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

**DEFAULT CALL
  TYPE**

Write Security: 3; Read Security: 5
Specifies the data rate for single call as either 56 or 64 kbps if not specified in the Smart Dial string.

DEFAULT DIAL CALL AS

Write Security: 3; Read Security: 5

Specifies the call type used to populate the Bearer Capability Information Element in the ISDN Call Setup Message if not specified in the Smart Dial string. Options include: **DIGITAL** (Data), **VOICE** (Speech), or **AUDIO** (3.1kHz audio).

DEFAULT SOURCE ID

Write Security: 3; Read Security: 5

Defines the source ID assigned to this call to be used for internal ATLAS routing when not otherwise specified in the Smart Dial string. Refer to *Src ID* discussion on page 39 for more details.

DEFAULT MIN DS0S

Write Security: 3; Read Security: 5

This option will specify the minimum number of DS0s necessary for this switched call if not otherwise specified in the Smart Dial string. If the call is negotiated and the minimum DS0s value is not met, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

DEFAULT MAX DS0S

Write Security: 3; Read Security: 5

This option will specify the maximum number of DS0s allowed for this switched call if not otherwise specified in the Smart Dial string. If the call is negotiated and the maximum DS0s value is not acceptable to the answering equipment, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MIN INCOMING DS0S

Write Security: 3; Read Security: 5

This option will specify the minimum number of DS0s necessary for an incoming switched call to this endpoint. If the call is negotiated and the minimum DS0s value is not met, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MAX INCOMING DS0S

Write Security: 3; Read Security: 5

This option will specify the maximum number of DS0s allowed for an incoming switched call to this endpoint. If the call is negotiated and the maximum DS0s value is not acceptable to the answering equipment, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

The following menus are only available when the **DIALING METHOD** is **MANUAL**.

REDIAL NUMBER

Write Security: 3; Read Security: 5
Activator to dial or disconnect a call to the specified number.

DIAL NUMBER

Write Security: 3; Read Security: 5
Specifies the number to dial on an outgoing call.

CALL TYPE

Write Security: 3; Read Security: 5
Specifies whether the data rate on the call will be 56 or 64kbps.

DIAL CALL AS

Write Security: 3; Read Security: 5
Specifies the call type used to populate the Bearer Capability Information Element in the ISDN Call Setup Message. Options include: **DIGITAL** (Data), **VOICE** (speech), or **AUDIO** (3.1 kHz audio).

SOURCE ID

Write Security: 3; Read Security: 5
Defines the source ID assigned to this call to be used for internal ATLAS routing. Source IDs simplify the creation of a dial plan in applications where the criterion for switching calls to a certain endpoint is a function of which endpoint originated the call.

MIN DS0S

Write Security: 3; Read Security: 5
This option will specify the minimum number of DS0s necessary for this switched call. If the call is negotiated and the minimum DS0s value is not met, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MAX DS0S

Write Security: 3; Read Security: 5
This option will specify the maximum number of DS0s allowed for this switched call. If the call is negotiated and the maximum DS0s value is not acceptable to the answering equipment, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

STORED NUMBERS

Write Security: 3; Read Security: 5
Enter the numbers to dial using the RS-366 Type II dialing interface in the stored numbers list. This list can contain up to 10 stored numbers.

#

Entry number (1-10).

DIAL   Activator to dial or disconnect a call to the specified number.

DESCRIPTION   Alphanumeric character string (up to 20 characters) used as a descriptor for the number entry. Enter a useful description such as VCon5thFloor(Corp).

DIGITS   Number string (up to 10 digits) to dial.

TYPE   Specifies whether the data rate on the call will be 56 or 64kbps.

DIAL AS   Specifies the call type used to populate the Bearer Capability Information Element in the ISDN Call Setup Message. Options include: Digital (Data), Voice (speech), or Audio (3.1kHz audio).

SRC ID   Defines the source ID assigned to this call to be used for internal ATLAS routing. Source IDs simplify the creation of a dial plan in applications where the criterion for switching calls to a certain endpoint is a function of which endpoint originated the call.

                      Zero (0) is the default ID for all endpoints and all accept numbers. If all default SOURCE ID values are not modified, calls are routed based only on the dialed number.

                      Multiple endpoints may have the same SOURCE ID. When creating the CALL ACCEPT list, specify a SOURCE ID(s) as well as a dialed number or range of dialed numbers to accept on that endpoint.

MIN DS0S   This option will specify the minimum number of DS0s necessary for this switched call. If the call is negotiated and the minimum DS0s value is not met, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MAX DS0S   This option will specify the maximum number of DS0s allowed for this switched call. If the call is negotiated and the maximum DS0s value is not acceptable to the answering equipment, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MIN INCOMING DS0S Write Security: 3; Read Security: 5
                      This option will specify the minimum number of DS0s necessary for an incoming switched call to this endpoint. If the call is negotiated and the minimum DS0s value is not met, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MAX INCOMING DS0S Write Security: 3; Read Security: 5
                      This option will specify the maximum number of DS0s allowed for an incoming switched call to this endpoint. If the call is negotiated and the maximum DS0s value is not acceptable to the answering equipment, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

The following menus are only available when the **DIALING METHOD** is **ON DTR.**

DIAL NUMBER

Write Security: 3; Read Security: 5
Specifies the number to dial on an outgoing call.

CALL TYPE

Write Security: 3; Read Security: 5
Specifies whether the data rate on the call will be 56 or 64kbps.

DIAL CALL AS

Write Security: 3; Read Security: 5
Specifies the call type used to populate the Bearer Capability Information Element in the ISDN Call Setup Message. Options include: **DIGITAL** (Data), **VOICE** (speech), or **AUDIO** (3.1kHz audio).

SOURCE ID

Write Security: 3; Read Security: 5
Defines the source ID assigned to this call to be used for internal ATLAS routing. Source IDs simplify the creation of a dial plan in applications where the criterion for switching calls to a certain endpoint is a function of which endpoint originated the call.

MIN DS0S

Write Security: 3; Read Security: 5
This option will specify the minimum number of DS0s necessary for this switched call. If the call is negotiated and the minimum DS0s value is not met, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MAX DS0S

Write Security: 3; Read Security: 5
This option will specify the maximum number of DS0s allowed for this switched call. If the call is negotiated and the maximum DS0s value is not acceptable to the answering equipment, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MIN INCOMING DS0S

Write Security: 3; Read Security: 5
This option will specify the minimum number of DS0s necessary for an incoming switched call to this endpoint. If the call is negotiated and the minimum DS0s value is not met, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

MAX INCOMING DS0S

Write Security: 3; Read Security: 5

This option will specify the maximum number of DS0s allowed for an incoming switched call to this endpoint. If the call is negotiated and the maximum DS0s value is not acceptable to the answering equipment, the call will be disconnected. Any value other than 1 requires a BONDING resource to inverse multiplex the multiple switched channels together.

Appendix B   Smart Dial String Formats

The Video Module accepts changes to Call Type and Channel Rate by using suffix commands appended to the end of the dial string. The following string format is used.
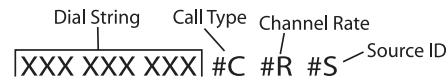
Where #C changes the Call Type as follows:

3=56K Data
4=64K Data

Where #R changes the Channel Rate (number of ISDN B channels) as follows:

1=1 B Channel (1x56k, 1x64k)
2=2 B Channel (2x56k, 2x64k) BONDING Mode 1
3=3 B Channel (3x56k, 3x64k) BONDING Mode 1
.

.

.

23=23 B Channel (23x56k, 23x64k) BONDING Mode 1

Where #S changes the Source ID (valid range 0-9) to route the call through the Dial Plan.

The following are dialing examples:

BONDING 384k using 64K call type (6x64k)	7082906055#4#6#0
BONDING 336k using 56K call type (6x56k)	7082906055#3#6#0
BONDING 256k using 64K call type (4x64k)	7082906055#4#4#0
BONDING 256k using 64k call type (4x64k) with Source ID 5	7082906055#4#4#5

If no suffix is used, the call is placed using the values configured for the Video Module. For example, if the Dual Video Module is configured with **DEFAULT CALL TYPE** = 64k digital data, **SOURCE ID** = 0, **DEFAULT MIN DS0S** = (2, 3, 4, 5, or 6), and **DEFAULT MAX DS0S** = 6, the dial string 7082906055 is the same as 7082906055#4#6#0.

If the Channel Rate suffix is used, the Call Type suffix is required. However, the Channel Rate is not required to make changes to the Call Type. For example, if the Video Module defaults configure the port for 384k Call Type, only the #3 suffix is required to change the Call Type to 336k. The dial string 7082906055#3 is the same as 7082906055#3#6.

If the Source ID suffix (#S) is used, both the Call Type (#C) and the Channel Rate (#R) Suffixes are required. However, the Source ID suffix (#S) is not required to make changes to the Call Type or Channel Rate. For example, if the Video Module defaults configure the port for 384k (6x64k) on Source ID=0, only the #3 and #8 suffixes are required to change the call type to 448k. The dial string 7082906055#3#8 is the same as 7082906055#3#8#0.

Appendix C Video Module Menu Tree

Info — Part Number
Serial Number
Board Revision

Slt
Type
Modules — Menu
Alarm
Test
State
Rev

Video Menu

Module Alarms

Alarm Status — Port — SLIP
(shortcut) — Alarms — PLL
Zero
No Ext Clk

DTE Status — Port
DTE Status — RTS
CTS
Data Rate — Port — DTR
Rate — DSR
DCD
RI
TD
RD — LOCK
PLL Fifo — Port — EC — RXE
PLL/Fifo — RXF
TXE
Configuration — TXF

Port
Name
Clk + / - — Normal
Inverted
Data — Normal
Inverted
CTS — Normal
Forced On
DCD — Normal
Forced On
DSR — Normal
Forced On
DTR — Ignore DTR
Recognize DTR
0 Inh — Off
On

Test Activity

Test — Port — No Loopback
(shortcut) — Loopback — Local Loopback
Loopback Status
511 — ON
OFF

511 Results — Sync — Y
Clr — ES — N
Inject — EIA
Prt — AUTO
DTE Interface — DTE Interface Mode — EIA-530
V.35
Current DTE Type — RS-449
Loopback

Figure C-1. ATLAS 800 Series Video Module Menu Tree

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