TABLE OF CONTENTS

Figures

REVISION HISTORY

REVISION	DESCRIPTION	DATE
1.0	First Release	Dec 2012

WARNING

Never look directly into an optical fiber. Non-reversible damage to the eye can occur in a matter of milliseconds.

1. OVERVIEW

The 7708VB-4-HSE is a *Vista*LINK® enabled transceiver for up to two HD-SDI signals or four SDI/DVB-ASI signals, 10/100/1000 Ethernet or combinations thereof. The product acts as bi-directional Network Equipment, providing efficient use of 3 Gigabits of transport capacity in both directions. By combining multiple signal types and directions in a single compact product, the 7708VB-4-HSE provides savings in both rack space and wavelengths.

All video signals may be asynchronous, and each output remains locked to its corresponding source. Video outputs are full-rate and uncompressed, with all horizontal and vertical ancillary data intact. Monitoring and control is provided locally at the card edge or remotely via *Vista*LINK®.

Features:

- Bi-directional transport of two HD-SDI, four SD/ASI or one HD-SDI plus three SD/ASI signals plus Ethernet on a single card
- Ethernet transport connection may be RJ45 or optical when fitted with optional SFP optical modules
- Flexible Bandwidth Management (FBM) to control Ethernet port data rate with respect to presence or absence of applied input video
- Signal transport uninterrupted by the application/loss of input signals
- Pluggable SFP fiber module permits wavelength swapping/sparing
- Comprehensive signal and card status monitoring via four-digit card-edge display
- *Vista*LINK® enabled for remote monitoring/control using 7700FC *Vista*LINK® Frame Controller installed in 7800FR frame
- Automatic coaxial equalization up to 100m at 1.485Gb/s (Belden 1694A or equivalent cable) and 250m at 270Mb/s
- Fully hot-swappable from front (main board) and rear (SFP fiber module) of frame
- Optical output wavelengths of 1310nm, 1550nm, and up to sixteen CWDM wavelengths
- Female LC Duplex fiber connector
- Occupies two card slots and can be housed in the 3RU 7800FR frame which has a 15 slot capacity or the portable 3RU 350FR frame which has a 7 slot capacity or the 1RU 7801FR which has a two module capacity

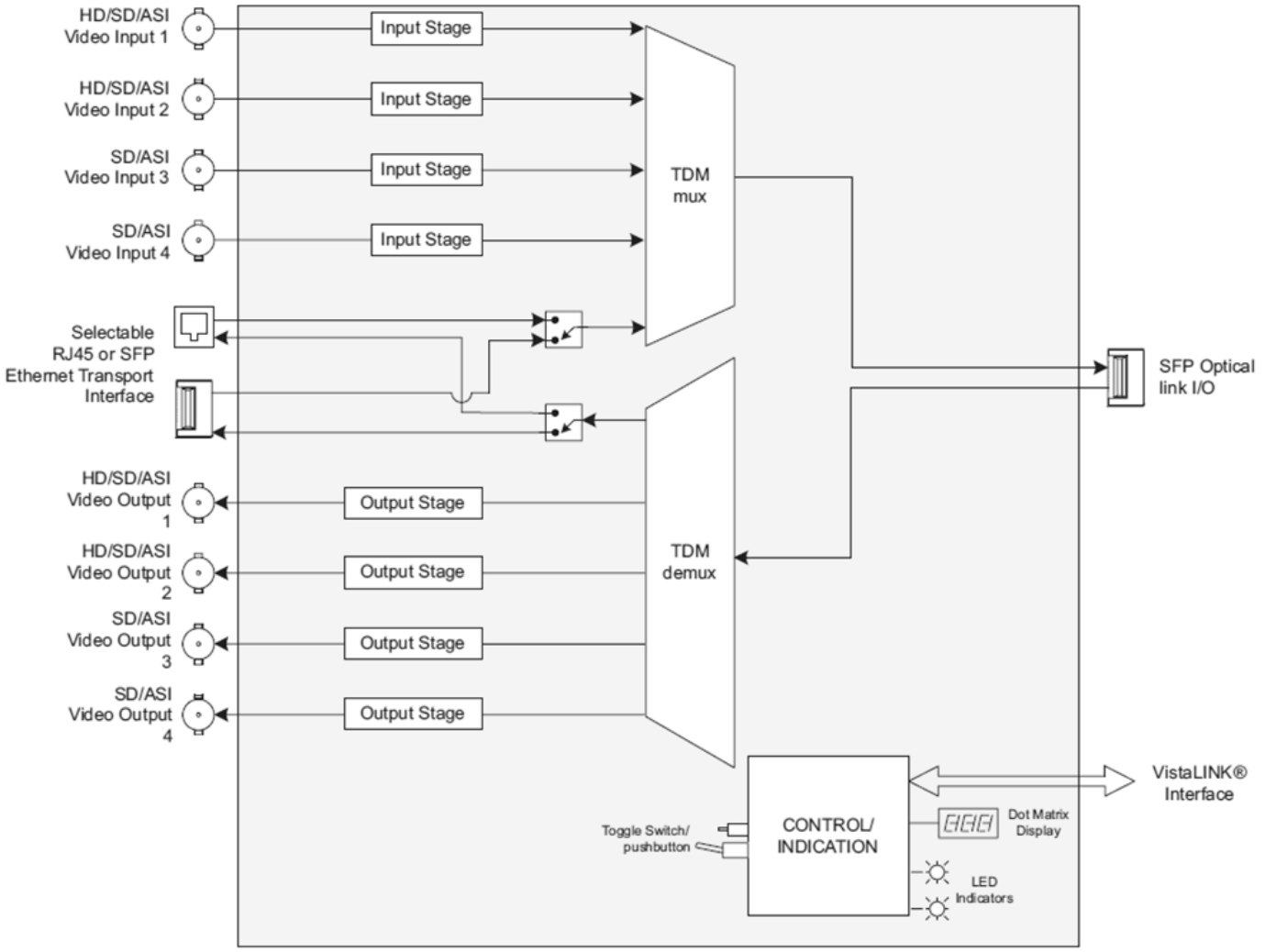


Figure 1-1: 7708VB-4-HSE Block Diagram

2. INSTALLATION

The 7708VB-4-HSE comes with a companion rear plate that has sixteen BNC connectors, two LC (one duplex) optical connectors and one RJ45 Ethernet connector. The Ethernet interface may optionally be equipped with an SFP, in which case the Ethernet interface is on two LC (one duplex) optical connectors. For information on mounting the rear plate and inserting the module into the frame see section 3 of the 7700FR chapter.

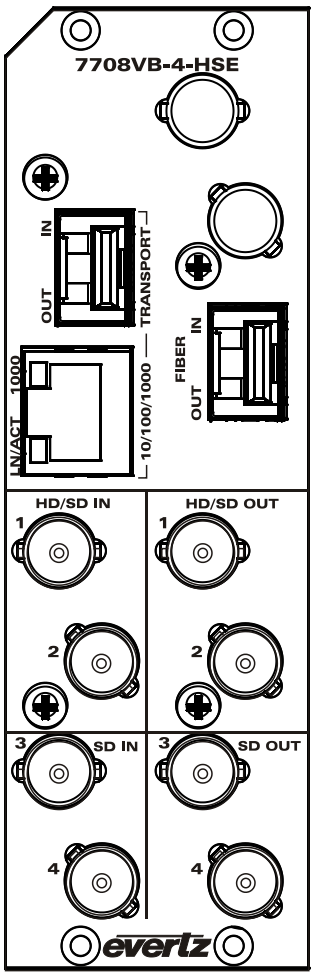


Figure 2-1: 7708VB-4-HSE Rear Panel

HD/SDI INPUTS: Two auto-sensing BNC inputs for HD-SDI, SD/ASI. These inputs provide adaptive equalization for up to 100m of industry standard Belden 1694A cable at 1.485Gb/s, or 250m of 1694A cable at 270Mb/s.

SDI INPUTS: Two auto-sensing BNC inputs for SDI or DVB-ASI. These inputs provide adaptive equalization for up to 250m of industry standard Belden 1964A cable.

HD/SDI OUTPUTS: Two BNC outputs for HD-SDI, SDI/ASI.

SDI OUTPUTS: Two BNC outputs for SD/ASI.

FIBER IN/OUT: Pluggable SFP fiber module with standard LC Duplex connector. The use of this pluggable optical module permits wavelength swapping/sparing. SFPs must be Evertz SFPTR-xx series. When inserting an SFP, ensure that the main board remains properly seated by opening the frame door and applying pressure to the card-edge ejector.

TRANSPORT 10/100/1000: RJ-45 connection for transport of 10/100/1000 Ethernet. Flexible Bandwidth Management (FBM) is used to control Ethernet bandwidth allocation (see section 4.2).

TRANSPORT 10/100/1000 IN/OUT: Pluggable SFP fiber module with standard LC Duplex connector for transport of 10/100/1000 Ethernet. Flexible Bandwidth Management (FBM) is used to control Ethernet bandwidth allocation (see section 4.2).

2.1. CARE AND HANDLING OF OPTICAL FIBER

2.1.1. Safety

CLASS 1 LASER PRODUCT

2.1.2. Assembly

Assembly or repair of the laser sub-module is done only at Evertz facility and performed only by qualified Evertz technical personnel.

2.1.3. Labeling

Certification and Identification labels are combined into one label. As there is not enough room on the product to place the label, it is reproduced here in the manuals.

- There is no date of manufacture on this label as it can be traced by the bar code label placed on the printed circuit board of each Evertz plug-in module.

Figure 2-2: Reproduction of Laser Certification and Identification Label

2.1.4. Handling and Connecting Fibers

Always keep dust caps on optical fiber connectors when not connected and always remember to properly clean the optical end face of a connector before making a connection. Never touch the end face of an optical fiber.

The transmission characteristics of the fiber are dependent on the shape of the optical core and therefore care must be taken to prevent fiber damage due to heavy objects or abrupt fiber bending. Evertz recommends that you maintain a minimum bending radius of 5 cm to avoid fiber-bending loss that will decrease the maximum attainable distance of the fiber cable. For further information about care and handling of fiber optic cable, see section 3 of the Fiber Optics System Design section of this manual binder.

2.2. HARDWARE INSTALLATION

Before handling the card it is important to minimize the potential effects of static electricity. It is therefore recommended that an ESD strap be worn. Locate on a frame chassis 2 adjacent vacant slots. Unpack the 7708VB-4-HSE card and separate the rear panel from the main card. Locate on the rear of the rack the two slots and remove the blanking panels. Insert the rear panel into the back of the chassis and secure using the screws provided.

Before inserting the front card, connect the serial cable to the board using the serial cable provided. Now insert the 7708VB-4-HSE card into the corresponding front slots ensuring the card lines up with the slot runners on the bottom and the top of the chassis. Push the card into the slot ensuring that when it mates with the rear card that is has been firmly pushed into a seated position. This can be confirmed when the connectivity lights for the Ethernet port are illuminated. Do not connect any cables to the rear card (failure to do this could cause unwanted network issues) until the initial configuration has been completed.

2.3. CONNECTING TO VISTALINK PRO (VLPRO)

This chapter assumes that the VLPro server and VLPro client are already configured for your network and you have basic knowledge of the VLPro interface. It also assumes that the user or network administrator has already added the 7708VB-4-HSE series jar file to the server and both the client and server applications have been restarted. If you are the network administrator refer to section 7.2 for information on updating the VLPro Server Jar File.

Open VLPro and click on the refresh tree icon. Expand the hardware tree by clicking on the “+” symbol. Further expand the IP address of the FC of the frame in which the card is inserted. The 7708VB-4-HSE should appear as a newly listed device under the FC IP address. It may take up to a minute to appear while the card and switch negotiate network settings (this can be verified directly on the switch if necessary).

Figure 2-3 identifies the parameters of the 7708VB-4-HSE module as it will appear if controlled via a Frame Controller:

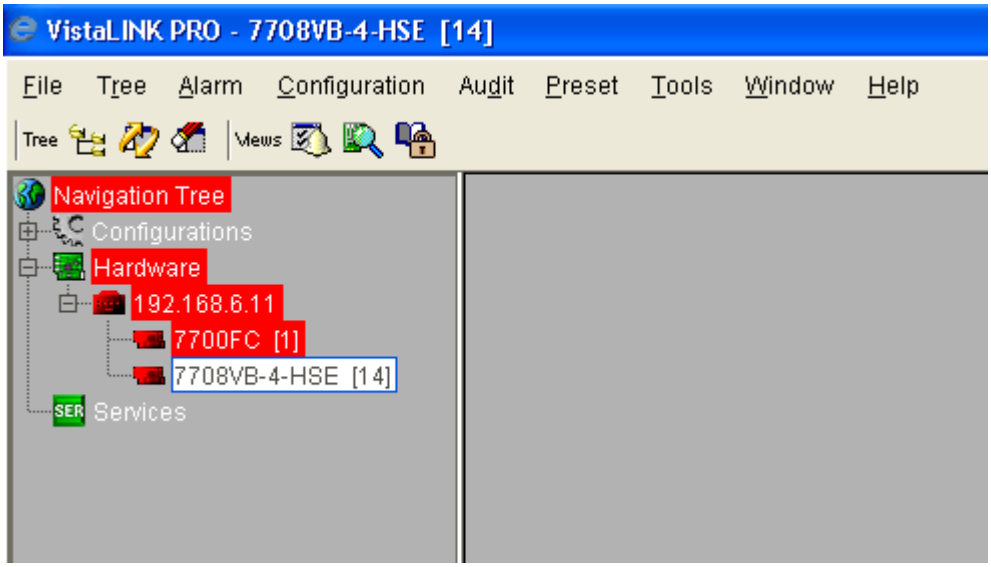


Figure 2-3: VistaLINK® PRO Hardware Configuration

Please consult your network administrator if you continue to have problems connecting the card with VLPro, alternatively contact Evertz Microsystems Ltd. or your authorized reseller for technical support.

3. SPECIFICATIONS

3.1. SERIAL VIDEO INPUT

Number of Inputs:	4
Input 1-2:	SMPTE 259M-C, SMPTE 292M, DVB-ASI
Input 3-4:	SMPTE 259M-C, DVB-ASI
Connector:	1 BNC per IEC 61169-8 Annex A
Equalization:	Automatic to 100m @ 1.485Gb/s and 250m @ 270Mb/s with Belden 1694A or equivalent cable
Return Loss:	> 15dB up to 1.5Gb/s

3.2. SERIAL VIDEO OUTPUT

Number of Outputs:	4
Standards:	
Input 1-2:	SMPTE 259M-C, SMPTE 292M, DVB-ASI, SMPTE 305M (SDTi)
Input 3-4:	SMPTE 259M-C, DVB-ASI
Connector:	1 BNC per IEC 61169-8 Annex A
Signal Level:	800mV nominal
DC Offset:	0V ±0.5V
Rise and Fall Time:	
1.485Gb/s:	<270ps
270Mb/s:	900ps nominal
Overshoot:	<10% of amplitude
Return Loss:	>12dB
Alignment Jitter:	<0.2 UI

3.3. OPTICAL LINK OUTPUT

Number:	1 per SFP
Connector:	Female LC Duplex
Return Loss:	> 12dB
Fiber Size:	9µm core/125mm overall
Wavelengths:	
Standard:	1310nm, 1550nm
CWDM:	1270nm – 1610nm
Output Power:	
1310nm:	-2dBm ±1dBm
CWDM:	+3.5dBm ±1dBm
Rate:	3 Gb/S

3.4. OPTICAL LINK INPUT

Number of Inputs: 1
Connector: Female LC Duplex
Operating Wavelength: 1270nm - 1610nm

Maximum Input Power:
Standard (+S) Receiver: -1dBm
Optical Sensitivity:
Standard +S) Receiver: -21dBm
Rate: 3 Gb/s

3.5. ETHERNET INPUT/OUTPUT

Standard: IEEE 902.3 (10 Base T), IEEE 802.3u (100Base TX), IEEE 802.3ab (1000base TX)
Optical (*when fitted with optional SFP)*
Connector: SFP (Female LC Duplex)

Output:
Wavelengths:
Standard 1310nm, 1550nm
CWDM 1270nm – 1610nm
Output Power:
1310nm: -2dBm ±1dBm
CWDM: +3dBm ±1dBm

Input:
Operating Wavelength: 1270nm- 1610nm
Maximum Input Power:
Standard: -1dBm
Optical Sensitivity:
Standard: -21dBm

Electrical:
Connector: RJ45
Cable Requirements:
10 Base T UTP category 3, 4 or 5 cable up to 328ft/100m (2 pairs)
100 Base TX UTP category 5 cable up to 328ft/100m (2 pairs)
1000 Base TX UTP category 5 cable up to 164ft/50m (4 pairs)

3.6. ELECTRICAL

Voltage: +12V DC
Power: 13W

3.7. COMPLIANCE

Electrical Safety: Complies with CSA C22.2 No. 60065-03 IEC 60065-(2001-12) 7th Edition
Complies with CE Low voltage directive 93/68/EEC

Laser Safety: Complies with 24 CFR 1040.10 and 1040.11 except for deviations pursuant to LN No. 50, dated July 6, 2001 Complies with IEC 0825-1, Am. 2

EMI/RFI: Complies with FCC regulations for class A devices
Complies with EU

3.8. PHYSICAL

Number of Slots: 2

4. STATUS INDICATORS AND DISPLAYS

The 7708VB-4-HSE has 10 LED Status indicators and a 4 digit alphanumeric display on the front card edge to show operational status of the card at a glance. The card edge toggle switch and pushbutton are used to select various displays on the alphanumeric display. Figure 4-1 shows the locations of the indicators, toggle switch and pushbutton.

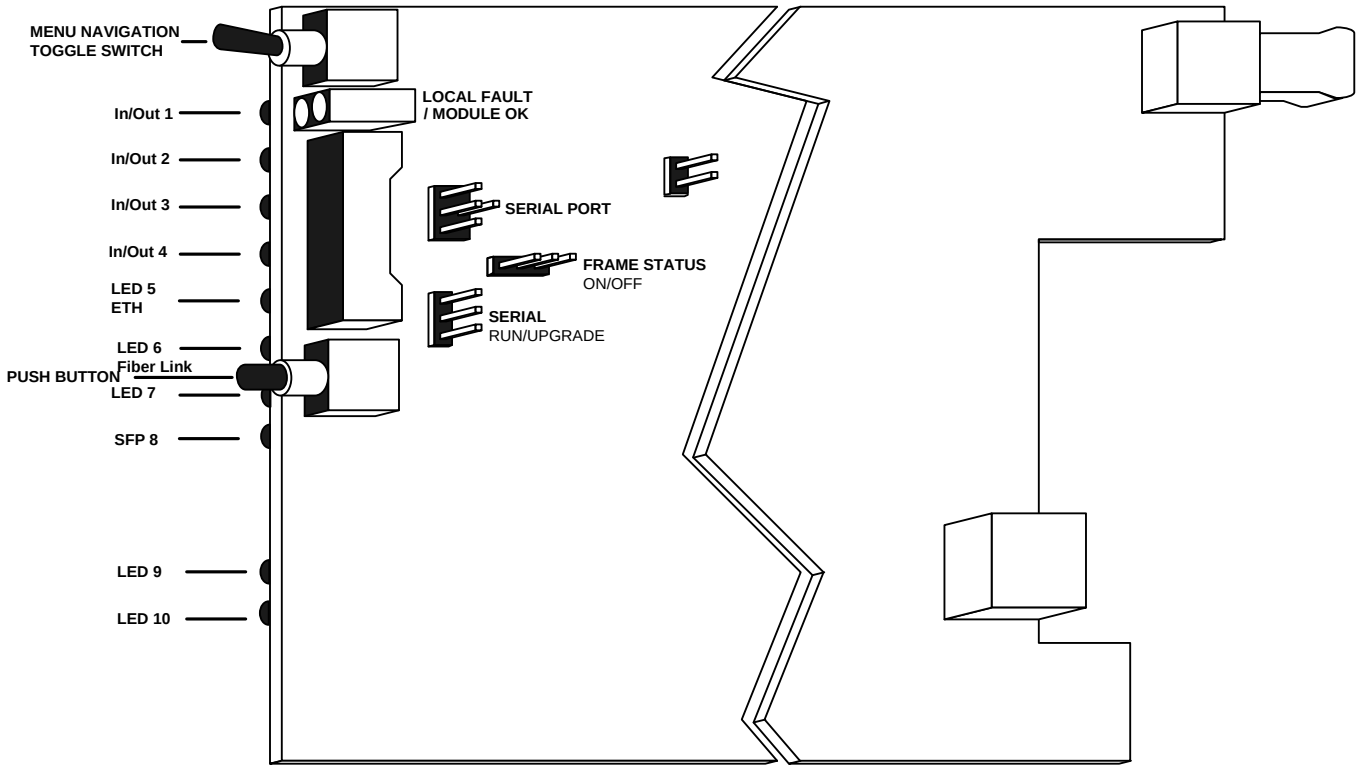


Figure 4-1: Location of Status Indicators, Jumpers and Controls

4.1. STATUS INDICATOR LEDS

Two large LEDs at the front card-edge display the status of module as follows:

MODULE OK: This Green LED indicates good module health. It will be ON while there is no laser, SFP, card-slot or power faults.

LOCAL FAULT: This Red LED will illuminate when a fault condition is detected. Possible fault conditions include laser, SFP, card-slot or power faults. Whether or not this LOCAL FAULT indication is reported to the frame may be determined by the FRAME STATUS jumper (see section 5.1).

LEDs 1-4 have selectable video status indications as follows:

4.1.1. Input Video Status

Select indication of input video status using the CTRL/LED/VIN menu selection (see section 4.2).

GREEN indicates the presence of a valid input to the corresponding channel.

OFF indicates a signal loss of signal condition.

4.1.2. Output Video Status

Select indication of output video status using the CTRL/LED/VOUT menu selection (see section 4.2).

GREEN indicates the presence of a valid output to the corresponding channel.

OFF indicates a signal loss of the signal condition.

4.2. DOT-MATRIX DISPLAY / CARD STATUS AND CONTROLS

Additional status monitoring and controls are provided via the 4-digit dot-matrix display located at the card-edge. The card-edge toggle switch and pushbutton (see Figure 4-1) are used to navigate through the display menus.

You can use the toggle switch to move up and down the list of available parameters to adjust. To adjust any parameter, use the toggle switch to move up or down to the desired parameter and press the pushbutton. Using the toggle switch, adjust the parameter to its desired value. If the parameter is a numerical value, the number will increase if you push up on the toggle switch and decrease if you push down on the toggle switch. If the parameter contains a list of choices, you can cycle through the list by pressing the toggle switch in either direction. The parameter values are changed as you cycle through the list.

When you have stopped at the desired value, depress the pushbutton. This will return to the parameter select menu item you are setting (the display shows the parameter name you were setting). To change another parameter, use the toggle switch to select other parameters. If neither the toggle switch nor pushbutton is operated for several seconds the card edge control will exit the menu system and return to an idle state.

On all menus, there is an extra selectable item: *BACK*. Selecting *BACK* will take you to the previous menu (the one that was used to get into the current menu). On the main menu, *BACK* will both take the user to the normal operating mode (indicated by the moving line on the card edge display).

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
OK LASR ERR					
CTRL	INP	CH1	TRAN	EN	
				DIS	
			BW	1 to 200Mbps(For ASI)	
		CH2	TRAN	EN	
				DIS	
			BW	1 to 200Mbps(For ASI)	
		CH3	TRAN	EN	
				DIS	
			BW	1 to 200Mbps(For ASI)	
		CH4	TRAN	EN	
				DIS	
			BW	1 to 200Mbps(For ASI)	
	ETH	INTF	RJ45		
			FIBR		
		TRAN	ENAB		
			DISB		
		BW	Auto-0-1000 Mbps		
				**Auto enables FBM*	
	OUTP	CH1	TRAN	EN	
				DIS	
		CH2	TRAN	EN	
				DIS	
		CH3	TRAN	EN	
				DIS	
		CH4	TRAN	EN	
				DIS	
	LED	INP			
		OUT			
STAT	SFP	POWR			
		OTW			
	INP	CH1	TYPE	LOSS	
				HD	
				SD	
				ASI	
			STD	Type according to STD code	

		CH2	TYPE	LOSS	
				HD	
				SD	
				ASI	
			STD	Type according to STD code	
		Ch3	TYPE	LOSS	
				HD	
				SD	
				ASI	
			STD	Type according to STD code	
		CH4	TYPE	LOSS	
				HD	
				SD	
				ASI	
			STD	Type according to STD code	
	ETH		LINK	UP	
				DOWN	
			SPD	10	
				100	
				1000	
	OUTP	CH1	MODE		
			PYLD		
		CH2	MODE		
			PYLD		
		CH3	MODE		
			PYLD		
		CH4	MODE		
			PYLD		
	VER				

Table 4-1: Card Edge Menu Structure

If a specific menu selection has a configuration value associated with it, then this may be changed using the toggle switch. Pressing the pushbutton will apply the displayed value and return you to the previous menu level.

The most recent user selection will be maintained in non-volatile memory in the event of power loss to the module.

4.3. TOP LEVEL STATUS MENU STRUCTURE

Table 4-2 gives a brief description of the top level of the STATUS menu tree that appears when you enter the Status card edge menu system. Selecting one of these items will take you down into the next menu level to set the value of that parameter. The details of the each of the menu items are described in sections 4.4.1 to 4.3.6.

SFP	Displays the SFP parameters
INP	Displays the Video Input parameters
OUTP	Displays the Video Output parameters
ETH	Displays the Ethernet transport parameters
VER	Displays the current firmware version

Table 4-2: Top Level STAT Menu

4.3.1. Displaying the Receiver Optical Power

Menu selection can display the received optical power detected by the SFP module in (dBm). To display the received power from the **STAT** menu, use the toggle switch and pushbutton to select the **SFP** menu item and then choose the **POWR** menu item.

STAT
SFP
POWR
-30 to + 8 dBm

The following indications are possible:

-30 to **+8**	Optical Power (dBm)
LOW	Optical Power Low – Power is below –30dBm
OVER	Optical Power Over – Power is over the specified maximum (damage may occur)
NA	Not Available – Pluggable SFP module not detected

4.3.2. Displaying the Transmit Optical Wavelength

Menu selection can display the nominal optical transmit wavelength. To display the transmit wavelength from the **STAT** menu, use the toggle switch and pushbutton to select the **SFP** menu item and then choose the **OTW** menu item.

STAT
SFP
OTW
Values from SFP
NA

The following indications are possible:

0 to **3276.75**	Nominal Optical Transmit Wavelength (nm)
NA	Not Available – Pluggable SFP module not detected

4.3.3. Displaying the Input Video Standard

Menu selection can display the status of the video signals present at its inputs. To display the video input status from the **STAT** menu, use the toggle switch and pushbutton to select the **INP** menu item and then choose from **CH1** to **CH4**. The following indications are possible:

1080I-60	**720P-60**
1080I-59.94	**720P-59.94**
1080I-50	**720P-50**
1035I-60	**1080P-60**
1035I-59.94	**ASI**
1080I-48	**525I**
1080I-47.96	**525I-SDTI**
1080I-60	**625I**

STAT
INP
CH1-CH4

TYPE	*STD*
LOSS *HD* *SD* *ASI*	*Acc to the STD code*

TYPE Displays the type of the input signal from HD, SD or ASI

STD Displays the standard of the input signal according to the STD code

4.3.4. Displaying the Output Video Standard

To display the video output standard from the **STAT** menu, use the toggle switch and pushbutton to select the **OUTP** menu item and then choose the desired video channel **CH1** to **CH4**. The following indications are possible:

1080I-60	**1080I-48**	**720P-50**
1080I-59.94	**1080I-47.96**	**ASI**
1080I-50	**1080I-60**	**525I**
1035I-60	**720P-60**	**525I-SDTI**
1035I-59.94	**720P-59.94**	**625I**

STAT
OUTP
CH1-CH4

MODE	PYLD
LOSS *HD* *SD* *ASI*	Ok LOSS

MODE This menu selection displays the type of the output signal

PYLD Displays Ok when a valid output is detected and LOSS when no output is present

4.3.5. Displaying the Ethernet Transmit Status

To display the Ethernet status from the **STAT** menu, use the toggle switch and pushbutton to select the **ETH** menu item and then choose the LINK or SPD to monitor link status and the speed.

STAT		
ETH		
	LINK	SPD
	UP *DOWN*	10 100 100

LINK UP This menu selection displays the link status of the Ethernet

SPD This menu item displays the speed of the Ethernet link

4.3.6. Displaying the Firmware Version

To display the module firmware version from the **STAT** menu, use the toggle switch and pushbutton to select the **VER** menu item. The following indications are possible:

STAT
VER
Software Version

The software version will be displayed here. For example:

VER 1.0 BLD 067

4.4. TOP LEVEL CONTROL MENU STRUCTURE

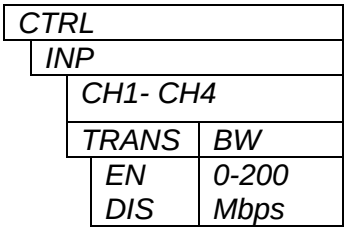
Table 4-3 gives a brief description of the top level of the CONTROL menu tree that appears when you enter the Control card edge menu system. Selecting one of these items will take you down into the next menu level to set the value of that parameter. The details of the each of the menu items are described in sections 4.4.1 to 4.4.6.

INP	Configures the Video Input Control
ETH	Configures the Ethernet Transport Control
OUTP	Configures the Video Output Control
LED	Configures the LED indications

Table 4-3: Top Level CONTROL Menu

4.4.1. Controlling the Input Video Enable/Disable and Bandwidth Allocation

Input video transmission enable/disable and ASI bandwidth allocation can be adjusted with this menu control. The ASI bandwidth allocation value represents the maximum allowable ASI payload bandwidth on the port in question, with the remainder of the bandwidth being made available for Ethernet transport. Signals with ASI payloads above this value will be disallowed. To configure the ASI bandwidth allocation from the **CTRL** menu, use the toggle switch and pushbutton to select **INP** menu item. The following selections are available for all four channels.

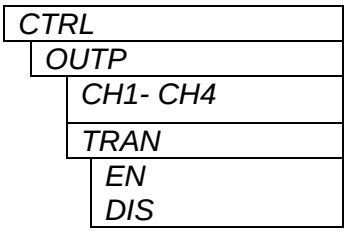


TRANS Selects video input to be enabled or disabled

BW Selects ASI video input bandwidth allocation ranging anywhere between 0-200Mbps

4.4.2. Controlling the Output Video Enable/Disable

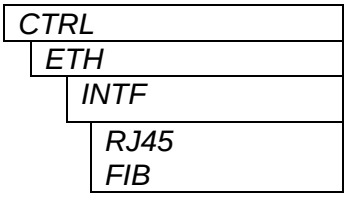
This menu item allows the user to enable or disable output transmission. To configure the video output from the **CTRL** menu, use the toggle switch and pushbutton to select **OUTP** menu item. The following selections are available for all four channels.



TRANS Selects video output to be enabled or disabled

4.4.3. Selecting the Ethernet Interface

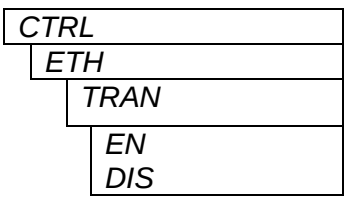
This menu item allows the user to select the Ethernet interface between RJ45 and Fiber. To configure the interface from the **CTRL** menu, use the toggle switch and pushbutton to select the **ETH** menu item. The following selections are available in the **INTF** menu item:



INTF Allows the user to select between RJ45 and Fiber interface for Ethernet. RJ45 is default selected.

4.4.4. Controlling Ethernet Transmission Enable/Disable

This menu item allows the user to select the enable or disable the Ethernet Transmission. To configure the interface from the **CTRL** menu, use the toggle switch and pushbutton to select the **ETH** menu item. The following selections are available in the **TRAN** menu item:



TRANS Selects the Ethernet transmission to be enabled or disabled

4.4.5. Controlling the Ethernet Bandwidth

This menu item allows the user to select the Ethernet Transmission bandwidth allocation. Setting a value here effectively gives Ethernet traffic priority over video and will allocate that amount of bandwidth for Ethernet transport, with the remainder available for ASI and video transport. Any ASI or video signals whose bandwidth exceeds the available bandwidth not allocated to Ethernet will be disallowed. In AUTO mode, video signals are given priority and the Flexible Bandwidth Management (FBM) automatically throttles the available Ethernet port bandwidth based on the amount of bandwidth not being utilized by applied video. The 7708VB-4-HSE has a total transport bandwidth capacity of 3 Gb/s for all applied video, ASI and Ethernet signals. To configure the bandwidth from the **CTRL** menu, use the toggle switch and pushbutton to select the **ETH** menu item. The following selections are available in the **BW** menu item:

CTRL
- *ETH*
  - *BW*
    - *AUTO*
    - *0-1000Mbps*

TRANS	Selects the Ethernet transmission mode and Bandwidth
AUTO	Enables the Flexible Bandwidth mode

4.4.6. Controlling the LED Status Indicators

The LED status indicators can be controlled using menu selections. To configure the LED status indicators from the **CTRL** menu, use the toggle switch and pushbutton to select the **LED** menu item. The following selections are available:

CTRL
- *LED*
  - *INP*
  - *OUT*

INP	Selects video input status for display according to section 4.1.
OUT	Selects video output status for display according to section 4.1.

5. JUMPERS AND LOCAL CONTROLS

Several jumpers, located at the front of the module are used to preset various operating modes.

5.1. SELECTING WHETHER LOCAL FAULTS WILL BE MONITORED BY THE GLOBAL FRAME STATUS

The FRAME STATUS jumper determines whether local faults (as shown by the Local Fault indicator) will be connected to the 7700FR frame's global status bus.

FRAME STATUS: To monitor faults on the 7708VB-4-HSE with the frame status indicators on the Power Supply FRAME STATUS LEDs and on the frame's Fault Tally output, install this jumper in the ON position (default).

When this jumper is installed in the OFF position, local faults on this module will not be monitored by the power supply LEDs or the frame's Fault Tally output but will only be indicated by the local fault indicator on the card itself.

5.2. CONFIGURING THE MODULE FOR FIRMWARE UPGRADES

UPGRADE: The UPGRADE jumper is used when firmware upgrades are being done to the card. For normal operation, this jumper should be installed in the RUN position. See the *Upgrading Firmware* section of this manual for more information.

To upgrade the 7708VB-4-HSE's firmware, begin by pulling it out of the frame. Move the UPGRADE jumper into the UPGRADE position. Install the upgrade cable provided (located in the vinyl pouch in the front of this manual) onto the SERIAL header at the card edge (see Figure 4-1). Re-install the module into the frame. Run the upgrade as described in the *Upgrading Firmware* section of this manual. Once the upgrade is complete, remove the module from the frame, move the UPGRADE jumper into the RUN position, remove the upgrade cable and re-install the module. The module is now ready for normal operation.

6. VLPRO CONFIGURATION

6.1. WHAT IS *VISTA*LINK®?

VistaLINK® is Evertz' remote monitoring and configuration platform which operates over an Ethernet network using Simple Network Management Protocol (SNMP). SNMP is a standard computer network protocol that enables different devices sharing the same network to communicate with each other. VistaLINK® provides centralized alarm management, which monitors, reports, and logs all incoming alarm events and dispatches alerts to all the VLPro Clients connected to the server. Card configuration through VistaLINK® PRO can be performed on an individual or multi-card basis using simple copy and paste routines, which reduces the time to configure each module separately. Finally, VistaLINK® enables the user to configure devices in the network from a central station and receive feedback that the configuration has been carried out.

There are 3 components of SNMP:

1. An SNMP manager, also known as a Network Management System (NMS), is a computer running special software that communicates with the devices in the network. Evertz VL-Fiber demo Manager graphical user interface (GUI), third party or custom manager software may be used to monitor and control Evertz *Vista*LINK® enabled fiber optic products.

2. Managed devices (such as 7708VB-4-HSE), each with a unique address (OID), communicate with the NMS through an SNMP Agent. Evertz VistaLINK® enabled 7700 series modules reside in the 3RU 7700FR-C MultiFrame and communicate with the manager via the 7700FC VistaLINK® frame controller module, which serves as the Agent.

3. A virtual database, known as the Management Information Base (MIB), lists all the variables being monitored, which both the Manager and Agent understand. Please contact Evertz for further information about obtaining a copy of the MIB for interfacing to a third party Manager/NMS.

For more information on connecting and configuring the *Vista*LINK® network, see the 7700FC Frame Controller chapter.

6.2. VIEW CONFIGURATION

Right click on the 7708VB-4-HSE card in the side bar navigation tree and select the “View Configuration” menu item. The configuration page will open; it is from these configuration tabs that the 7708VB-4-HSE can be configured. Refer to the relevant section of this manual for an explanation of the features and functions.

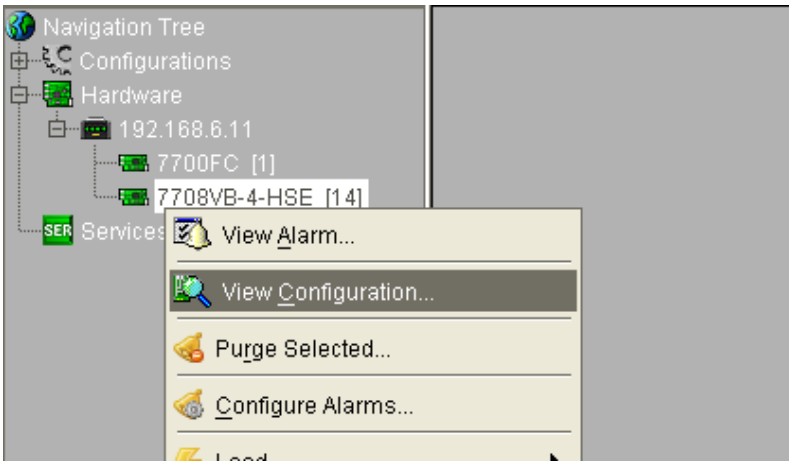


Figure 6-1: VistaLINK® PRO – View Configuration

6.2.1. Video Control

The ***Video Control Tab*** (Figure 6-2) allows the user to Enable and Disable the inputs and outputs of all four channels. It also allows the user to select the ASI Input Bandwidth cap. For more information refer to section 4.4.1.

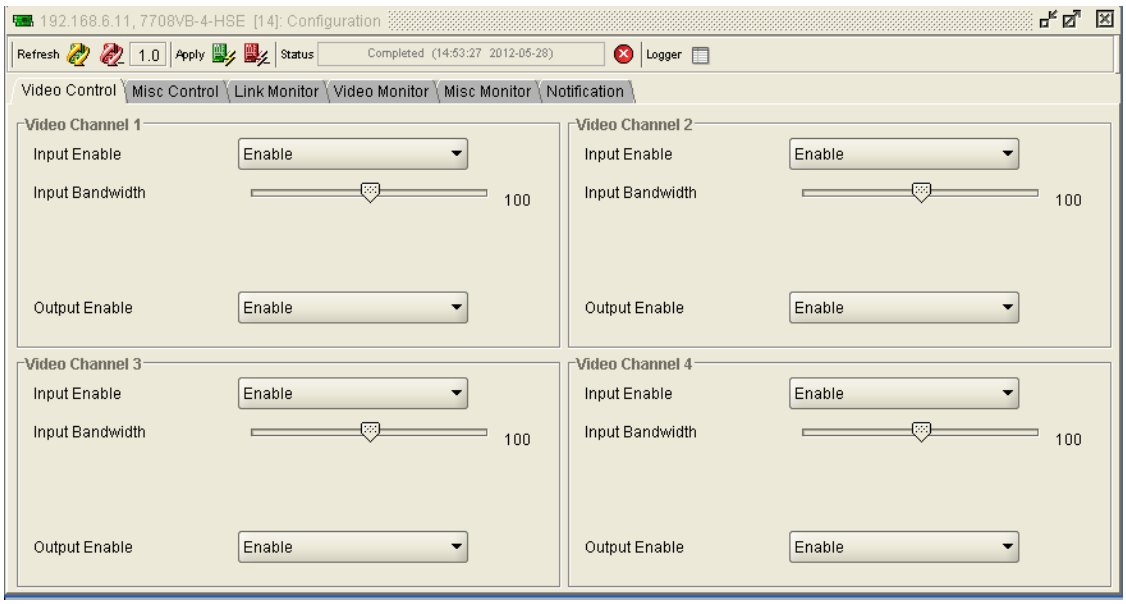


Figure 6-2: Video Control Tab

6.2.2. Misc Control

The ***Misc Control Tab*** allows the user to configure Ethernet and optical settings. Figure 6-3 displays ***Misc Control Tab***. For more information refer to section 4.4.5.

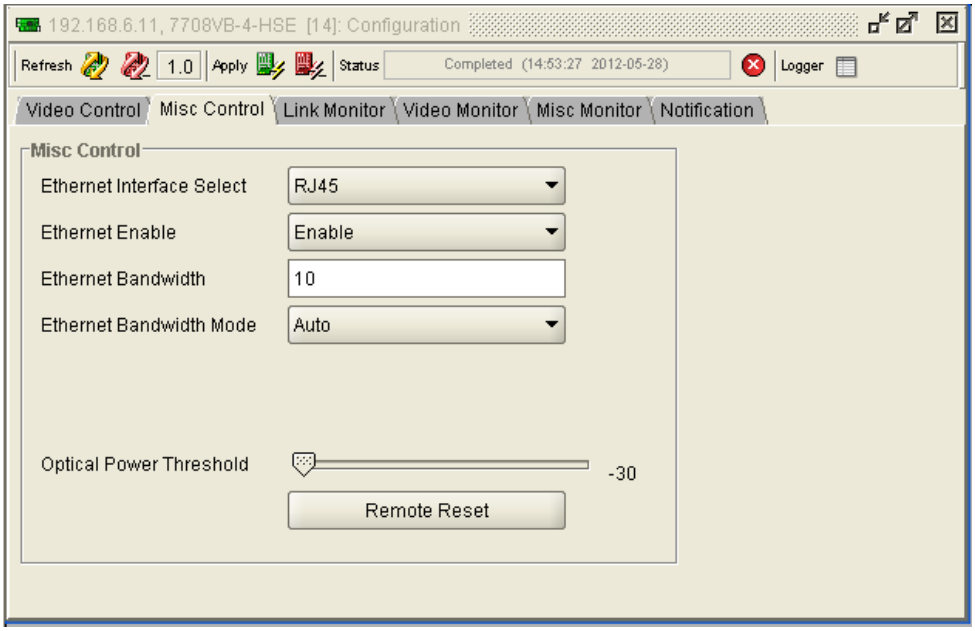


Figure 6-3: Misc Control Tab

Ethernet Interface Select: Allows the user to select Ethernet interface between RJ45 or Optical SFP.

Ethernet Enable: Allows the user to Enable/Disable Ethernet.

Ethernet Bandwidth: When Ethernet Bandwidth Mode in User select, this control allows user to select Ethernet bandwidth.

Ethernet Bandwidth Mode: Allows user to select between Flexible bandwidth Auto mode or User select force mode.

Optical Power Threshold: Allows the user to set the optical power threshold.

Remote Reset: Allows the user to perform a warm reboot.

6.2.3. Link Monitor

The ***Link Monitor Tab*** (Figure 6-4) allows the user to monitor Link Frame and Payload status. It also performs link frame error count.

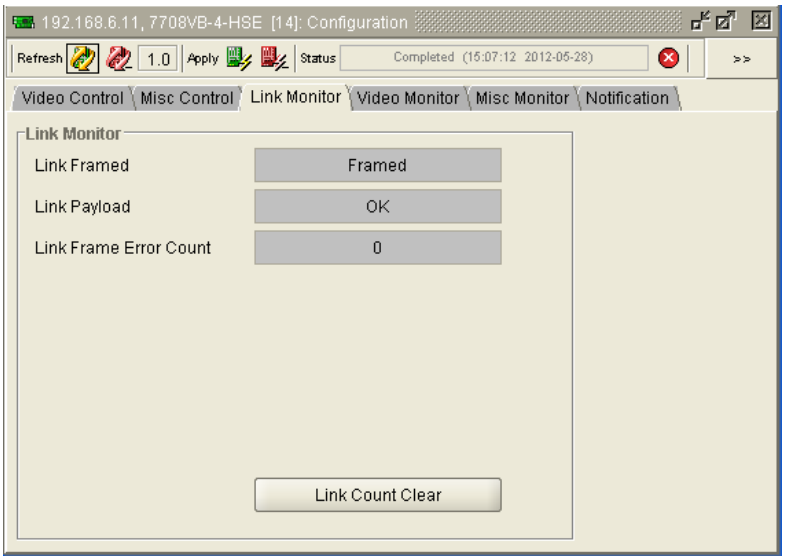


Figure 6-4: Link Monitor Tab

6.2.4. Video Monitor

The ***Video Monitor Tab*** (Figure 6-5) allows the user to monitor Input Mode, Standard and Output Mode on all four channels.

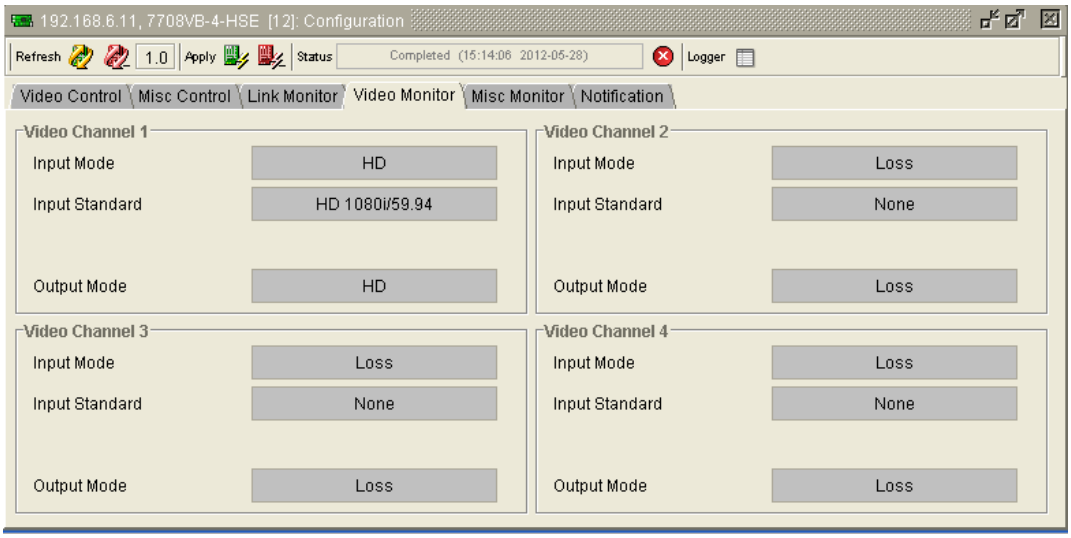


Figure 6-5: Video Monitor Tab

6.2.5. Misc Monitor

The ***Misc Monitor Tab*** (Figure 6-6) allows the user to monitor various optical and Ethernet parameters.

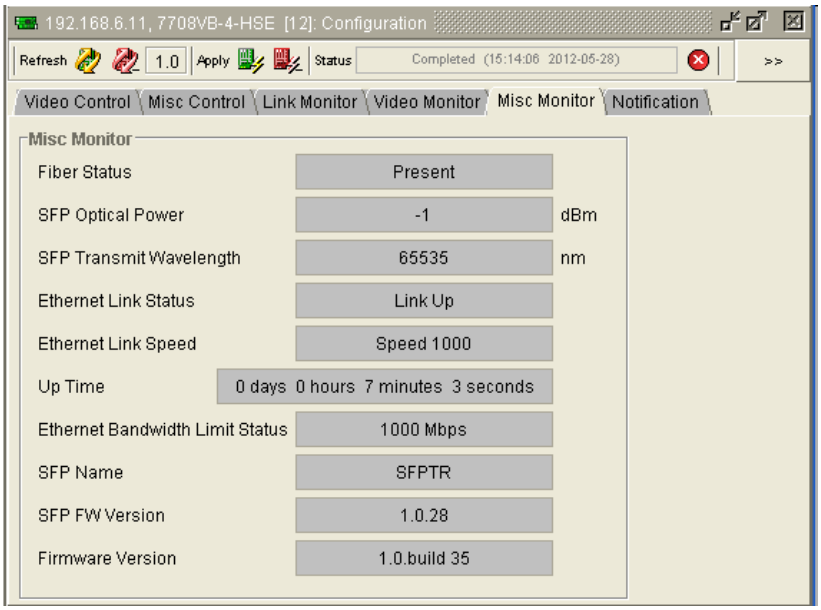


Figure 6-6: Misc Monitor Tab

6.2.6. Notifications

The ***Notification Tab*** (Figure 6-7) allows the user to enable or disable traps from being generated and remotely reported. It also monitors Link, Input, Output and Ethernet status.

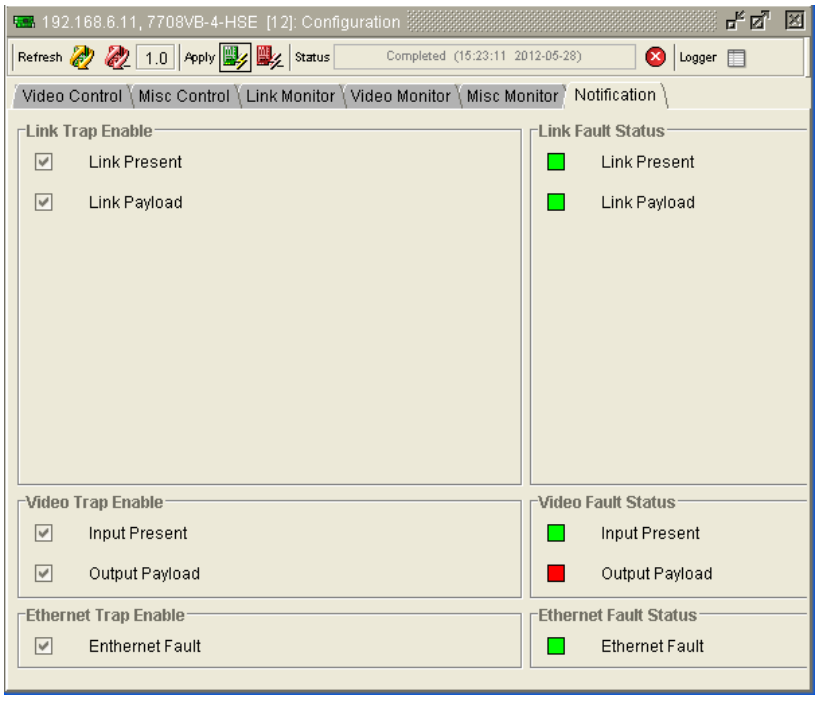


Figure 6-7: Notification Tab

7. TROUBLESHOOTING

7.1. VLPRO DOES NOT DISPLAY THE 7708VB-4-HSE ALARMS

The user must connect directly to the board via the serial port. Once a connection has been established, check and/or configure the SNMP settings with the correct VLPro Server IP address and ensure the community strings are correctly set. Refer to the network administrator if you are in doubt as to what these settings should be.

7.2. UPDATING VLPRO SERVER JAR FILE

Products from Evertz are constantly evolving and new features are often added. It is therefore important to update the JAR files in your system, to provide access to all the latest features or enhancements. It will also be necessary to add JAR files for new products. If your new product has not appeared, even after waiting a few minutes for the Ethernet switch negotiation to complete, then it is possible that your JAR file may be old or missing.

To perform a JAR update, ensure that all VLPro clients are closed (those clients which are not closed will automatically be disconnected as soon as the VLPro Server is restarted). Maximize the VLPro Server window and from the Windows task bar; select *Help> Apply Update> Product* from the menu.

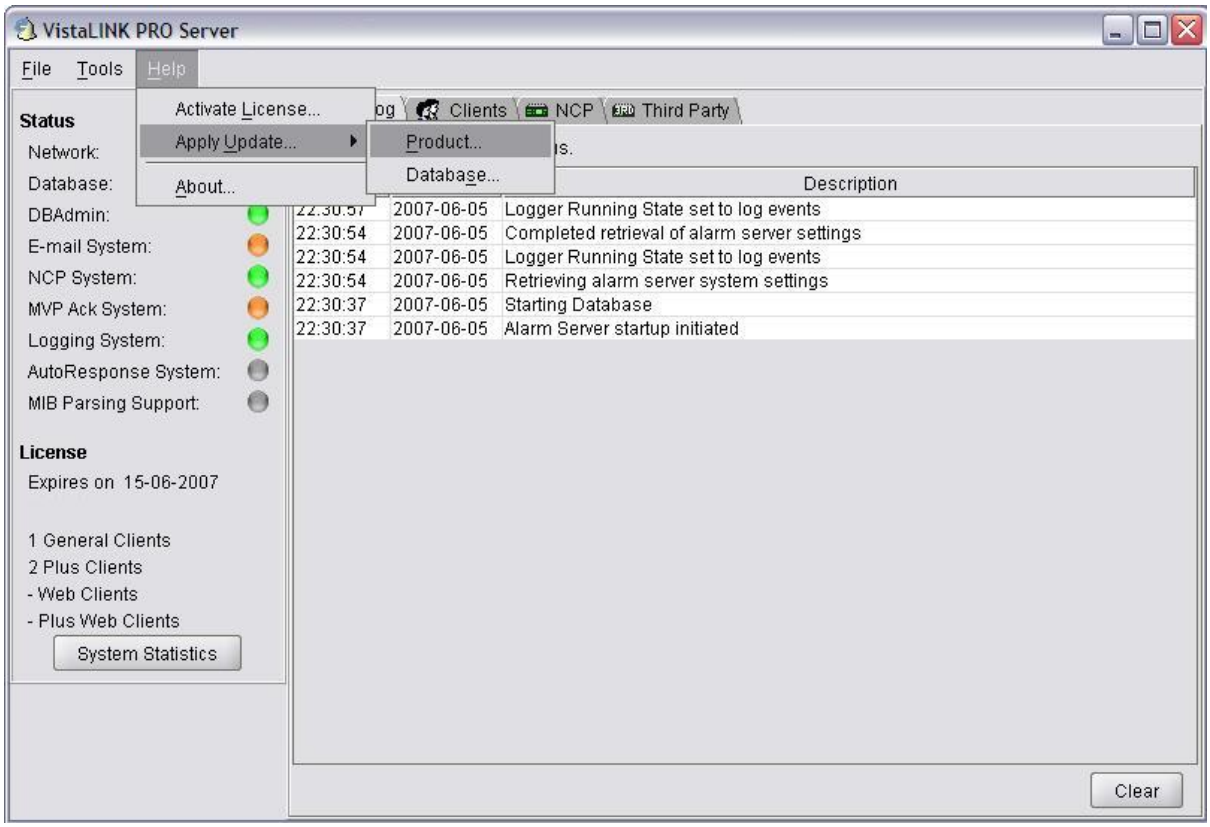


Figure 7-1: VistaLINK® PRO Server

A window will appear, as shown in Figure 7-2, simply navigate to the location of the new JAR file and double click to select the file. The window will automatically close and the update will be applied in the background.

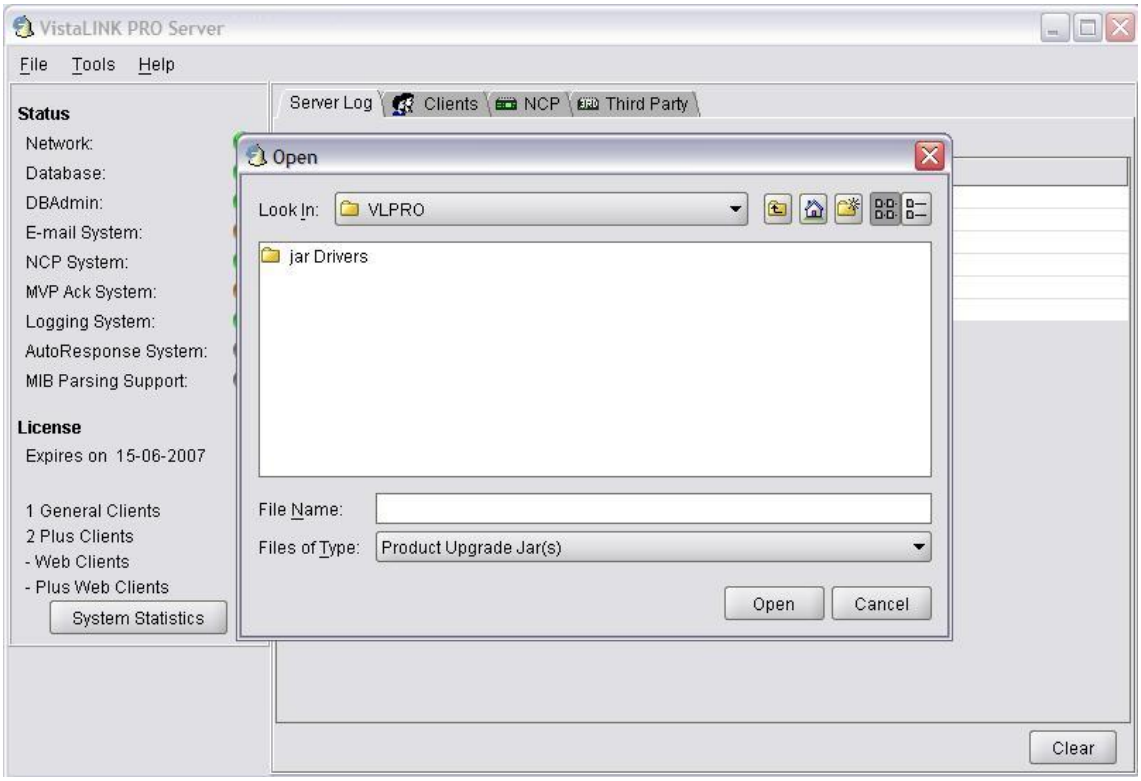


Figure 7-2: VistaLINK® PRO – Applying JAR Updates

You will be prompted to restart the server to enable the change to take effect. Apply as many JAR updates as required before restarting the server.

Figure 7-3: "Please Restart Your Alarm Server" Dialog Box

NOTE: You may confirm that all updates have been successfully applied by selecting from the menu *Tools>View>Show/Hide Product* update log.

Shutdown the server by selecting from the menu: *File>Shutdown Server*. Now re-open the server, it is normal for the startup to take marginally longer while each individual update is being applied. Once complete, you may restart the VLPro Clients. As the Client restarts you will experience a short delay while the update is applied. A prompt will appear confirming that the updates have been applied.