SL-3G TX MODULE

vidblox Quick-Start Guide





Input Audio to Vidblox	Embed Channel
Audio Channel 1 - Left Stereo	Channel 1 of Group 1
Audio Channel 2 - Right Stereo	Channel 2 of Group 1
Common Gnd	

576i	576p	720p/50	720p/60
1080p/50	1080p/60		
1024x768/60	1280x800/60	1280x1024/60	1360x768/60
1680x1050/60	1600x1200/60	1920x1200/60	

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Step 5 SYSTEM SET-UP AND CONFIGURATION

- Set-up, configuration and monitoring functions of Vidblox SL-3G TX module are performed over a facility network through GUI menu screens of PESA's Cattrax network controller application installed on a host PC running Microsoft Windows® 2000, XP, Vista or Windows 7 operating system; or on a single module through a USB connection using Cattrax Cub controller application
- USB driver file must be installed on host PC in order for Cattrax Cub to communicate with PESA equipment over USB port
- Cattrax and Cattrax Cub automatically search for PESA equipment through a process • called "discovery"
- Using Cattrax Cub, only one module may be connected to USB port at a time
- Vidblox is shipped from factory with an auto-run CD that loads Cattrax Cub controller application and USB driver onto a host PC

Communicating with Vidblox over a network:

- Locate Cattrax (NOT Cattrax Cub) software CD included with module and place in drive of host PC
- If installation program does not automatically start, navigate to directory of install CD • and double-click Setup.exe
- Follow screen prompts to install Cattrax
- Ensure that host PC is actively communicating over the facility network
- Ensure that an Ethernet cable is attached to the Vidblox network connector ٠
- Apply power to Vidblox module by connecting external power supply to module and to a source of primary power, or connect power cable jumper to Extender Frame power distribution module
- Vidblox supports the DHCP protocol and should automatically receive a valid IP • address from the facility DHCP server, if one is present on the network – if no DHCP server available, manually enter and select network addressing parameters - see Chapter 4 of User Manual
- Start the Cattrax software control application
- If PESA equipment you wish to control resides on multiple subnets, ensure all • required subnets are active - see Chapter 4 of User Manual
- Cattrax will discover and display in bold letters the ID of all active Vidblox modules on the network
- Double click the entry for the module you wish to control and proceed to the SL-3G ۰ TX Configuration Screens portion of this guide

Communicating with a single Vidblox module through USB:

- Locate Cattrax Cub (NOT Cattrax) software CD included with module and place in drive of host PC
- If installation program does not automatically start, navigate to directory of install CD • and double-click Setup.exe
- Follow screen prompts to install Cattrax
- When Cattrax Cub has installed, prompt to install USB driver is displayed •
- Click "OK" to install the driver •
- If USB driver is not present on host PC. Cattrax Cub will not communicate via USB with module
- Follow screen prompts to install USB driver
- Prompt is displayed when driver installation is complete •

CONNECT VIDBLOX MODULE TO HOST PC VIA USB PORT:

- Ensure that USB driver is installed on host PC •
- Apply power to Vidblox module by connecting external power supply to module and • to a source of primary power

SYSTEM SET-UP AND CONFIGURATION (CONT.)

CONNECT VIDBLOX MODULE TO HOST PC VIA USB PORT (CONTINUED):

 Connect USB cable first to mini-USB connector on module then to open USB port on host PC, as shown at right POWER SUPPLY Allow "Plug and Play" capability of the ٠

Step 5

- Windows[®] operating system to interface Vidblox hardware to host PC
- Follow on-screen prompts to complete • hardware installation
- Vidblox module should now be communicating with host PC If you encounter any difficulty
- establishing communication with host PC. consult the Vidblox SL-3G TX User Manual
- Start the Cattrax Cub software control application
- Cattrax will discover and display the ID of the active Vidblox module
- Double click the entry for the active module (shown in bold letters) you wish to control ٠ and proceed to the **Configuration Screens** portion of this guide

For further information, refer to Chapter 4 in the Vidblox SL-3G TX User Manual

SL-3G TX CONFIGURATION SCREENS:

- If it is not already started from the previous step, start Cattrax (for network control) • or Cattrax Cub (for USB control) by clicking desktop icon, or navigating through Start Menu of the Windows[®] operating system to Cattrax or Cattrax Cub program folder and clicking on Cattrax.exe file
- Double click the ID of the active (bold letters) Vidblox module you wish to control
- Vidblox Information Menu screen similar to that shown below is displayed on PC monitor



۲ vidblox® COMP HAL DI LOCK DIS DI X6 HO LOCK LOS PONER Host PC Running Cattrax Cub with QFX Device Driver

INFORMATION MENU

-

Step 5

INFORMATION MENU

• •

disabled

or audio muted

- .
- firmware
- module

CONTROLS MENU

Input Selection

- Video Input Type: _

- Analog I/P Type:
- _
- signal
- Input Color:
- space
- color space
- Tx Output Control Aspect Ratio:
 - transport stream

- SMPTE Format:
- _
- Field Rate:





SYSTEM SET-UP AND CONFIGURATION (CONT.)

STATUS OVERVIEW DISPLAY

• Top portion of every menu screen always displays Status Overview data

Module status data updated in real-time:

Input Resolution – Displays resolution of computer graphics video signal entering Video Input connector

Input Type – Displays format of input signal

Test Mode - Identifies when user-selectable test pattern signal is enabled or

Audio Source – Displays embedded audio source as input signal, 1 kHz test tone

 Model and Serial Number – Model identifier and serial number of module MAC Address – MAC address of module

Type – Indentifies type of module: TX or RX

SW Boot and SW Main – Revision levels of boot code and main program

FPGA Ver - Indicates version number of code programmed into FPGA device Alias – Enter any alias name you wish to assign to module User Text Fields – Use Text Field #1 and #2 to enter information concerning

Auto - Auto is default selection. Vidblox automatically determines format of incoming video as digital or analog

DVI - Manually selects incoming video as a digital DVI source

Analog - Manually selects incoming video as an analog source

Auto - Auto is the default selection. Vidblox automatically determines type of incoming analog video

VGA - Manually identifies incoming analog video as a VGA (RGBHV) source SOG - Manually identifies incoming video as a component analog "sync on green"

RGBS - Manually identifies incoming video as a RGB component analog signal with a separate composite sync signal

RGB – Identifies incoming video as a component analog signal using RGB color

YPbPr - Indentifies incoming video as a component analog signal using YPbPr

. Minimal – Minimal is default selection - Vidblox attempts to process incoming images without scaling and will only scale images that do not fit into selected

Scale-to-Fit - Scales image to just fit within selected SMPTE transport stream while maintaining aspect ratio of original image

Full Screen - Scales input image both horizontally and vertically to completely fill output transport format - this setting can alter aspect ratio of input signal

1080p – Default selection: selects format of SDI transport stream at 1080p 1080i – Selects format of SDI transport stream at 1080i 720p – Selects format of SDI transport stream at 720p

50Hz - Selects field rate of SDI transport stream at 50Hz 59.94Hz - Selects field rate of SDI transport stream at 59.94Hz

60Hz – Default selection: selects field rate of SDI transport stream at 60Hz

SL-3G TX CONFIGURATION SCREENS CONTINUED ON NEXT PAGE

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	Step 5 System Set-Up and Configuration (Cont.)	Step 5 System Set-UP and Configuration (Cont.)	Step 5
	SL-3G TX CONFIGURATION SCREENS CONTINUED FROM PREVIOUS PAGE CONTROLS MENU (CONTINUED) Monitor Output Selection Loopback Monitor: - Selects whether local Monitor Out connector is enabled or disabled – default selection is Enabled	 CONFIGURATIONS MENU IP CONFIGURATION (CONTINUED) Clicking DHCP Off button activates manual data entry fields below button – in DHCP On mode, these fields are displayed as inactive Click Apply to initiate DHCP mode and IP address change, you will be prompted to verify this action before process begins IP Address: Enter fixed IP address you wish to assign to module 	Custom Resolutions M Change Resolution Save: Clicking Save box grid, plus the user look-up table You will be promp STATUS AND ALARMS
	 EDID Source Type: Standard – Standard is default selection - reads EDID data from video source signal Custom – Allows user to define a custom EDID data stream Monitor – Reads EDID data from monitor connected to loop-thru Video Output connector 	 Enter fixed subnet mask you wish to assign to module Gateway: Enter fixed gateway parameter you wish to assign to module Factory Defaults Factory Reset: Clicking Factory Reset box restores factory default settings - you will be prompted to verify request before reset operation is performed. 	 INPUT VIDEO STATUS MEI Displays parameters FIBER MODULE STATUS M Fiber Module Inform Vendor Name: Identifies manufa
	Audio Audio Gain: - Provides a slider control for gain adjustment of incoming audio from -30dB to +10dB - default value is zero (0dB)	CUSTOM RESOLUTIONS MENU Select Resolution Number Select Resolution: Click radio button of custom resolution number you wish to configure or verify	Part No.: - Identifies manufa Date Code: - Displays date of :
•	 Video Test Pattern Select Test Mode: Enabled – Inserts a user-selectable video test pattern into SDI output signal Disabled – Removes test pattern and restores source video to SDI output – disabled is default selection Test Pattern: Clicking arrow opens a listing of available test patterns 	 When you select a button the user-defined name and saved parameters are displayed - if a custom resolution has previously been saved to that resolution number If no custom resolution has been saved, the <i>Name</i> field will be blank and all parameter fields filled with zeroes Set Base Resolution Base Resolutions: 	 Fiber Channel 1 and Type: Identifies type of TXFault: Indicates presend Temperature: Analog readout c
•	Analog Video Adjustments H position: Slider control that adjusts horizontal screen position of output display area V position: Slider control that adjusts vertical screen position of output display area Sampling Phase: Slider control that shifts phase of analog sample - adjust slider for best video quality	 Clicking arrows opens listing of available base resolutions Selecting a base resolution provides a starting point for entering custom resolution data, based on existing valid resolutions Select any resolution listed and data stream parameters for that resolution are entered in the modifiable Horizontal and Vertical fields When entering custom data for a resolution that is a slight deviation from a listed resolution, Set Base saves you time by filling in modifiable fields with values for selected reference resolution 	Power: - Analog readout ir <i>HARDWARE STATUS MEN</i> • Temperature – Fan Board Temperature: - Analog readout o
•	 DVI Equalizer Settings DVI Input: Eight position slider control that selects amount of equalization offered to input video signal – zero (slider fully left) is minimum and seven (slider fully right) is maximum Monitor O/P: Selects default output level of video signal at Monitor Output connector Low – Selects output level of 540mV p-p Medium – Selects output level of 770mV p-p High – High is default selection – selects output level of 1000mV (1V) p-p 	 You may modify any or all fields to define custom resolution Selecting or starting with a base resolution is not required to enter a custom resolution configuration Change Resolution Name: This text field allows you enter a descriptive name to identify custom resolution being configured Click cursor in field box and type desired text Press "return" to enter typed data into field Horizontal: 	Over Temp Threshol - Determines temp Alarms and Even FPGA Temperature: - Analog readout o Over Temp Threshol - Determines temp Alarms and Even On-Board Fan Status - Upper box provid indicates operatir
•	 Max – Selects output level of 1200mV p-p Audio Source Audio-In – Embedded audio is taken from signal present at Audio In connector on Vidblox 1 kHz Tone – Inserts internally generated 1 kHz tone into embedded output stream Mute – Inserts audio silence into embedded output stream 	 Data fields in which you modify or assign data parameter values of horizontal lines and sync for custom resolution When you enter or modify a value in a field, press "return" to actively enter data <i>Pixel Frequency</i> field is not modifiable and is shown on screen with a shaded background - this value is automatically calculated and inserted based on values entered for horizontal and vertical pixel data Vertical: 	External Fan Status: - Provides digital re mounted in an op Power Board Status: - Upper box provid rail, lower box inc
•	IP Configuration DHCP On and Off: - DHCP On is default selection - these buttons toggle dynamic host configuration	 Data fields in which you modify or assign data parameter values of vertical lines and sync for custom resolution When you enter or modify a value in a field, press "return" to actively enter data Clear. 	For further information
	 protocol (DHCP) function of Vidblox TX module on and off When DHCP <i>On</i> is selected, Vidblox automatically receives network IP address from network DHCP server With DHCP <i>Off</i> address Subset Mark and Cotours 	 Clicking <i>Clear</i> box clears all entries in all modifiable fields of Change Resolution grid You will be prompted to verify request before Clear operation is performed 	*If any components are or e-mail. Customer Service:

- With DHCP **Off** selected, IP address, Subnet Mask and Gateway parameters entered in fields below radio buttons are used as network operating parameters for TX module
- To toggle DHCP mode on or off, click button for desired mode

Reload: - Clicking Reload box causes all entries in all modifiable fields of Change Resolution grid to revert to values currently contained in saved custom resolution You will be prompted to verify request before Reload operation is performed



SYSTEM SET-UP AND CONFIGURATION (CONT.)

MENU on (Continued)

box writes all entries in all modifiable fields of Change Resolution user-defined name you entered to internal memory and resolution

ompted to verify request before Save operation is performed

IS MENUS

Menu ters associated with input video signal

- JS MENU formation
- ufacturer of SFP module
- ufacturer's part number of module
- of SFP module manufacture and 2 Status Displays
- of SFP module: TX or RX
- sence (OK) or absence (Error) of output channel signal
- ut of fiber channel transmitter operating temperature
- ut in dBm of fiber channel transmitter optical output power

IENU

an – Power Status

- Ire'
- ut of circuit board surface temperature
- shold Slider:
- emperature (Celsius) at which Over Temp alarm triggers an alert in vents panel – default value is 70° C
- ire:
- ut of FPGA device operating temperature
- shold Slider:
- mperature (Celsius) at which Over Temp alarm triggers an alert in vents panel – default value is 70° C
- atus

Toll Free:

Fax:

Email:

- ovides digital readout of FPGA cooling fan speed in RPM, lower box rating status of cooling fan speed
- al readout of extender frame cooling fan speed in RPM, if module is optional rack chassis - in not rack mounted, reading is zero
- ovides digital readout of measured operating voltage of 3.3V power indicates status of power supply voltage
- tion, refer to Chapter 4 in the Vidblox SL-3G TX User Manual
- re missing or damaged, contact PESA Customer Service by phone

(256) 726-9222 (800) 323-7372 (256) 726-9268 service@PESA.com

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