

LKEY SQZ Quick Start Guide

LKEY-SQZ is a unique product offering the highest quality picture squeeze and picture-in-picture (PIP) effects combined with downstream keying functionality.

The LKEY-SQZ video processing board fits into a Crystal Vision rack frame.

User control of LKEY-SQZ is done via a web interface.

To access this interface connect your PC to the frame Ethernet connector.

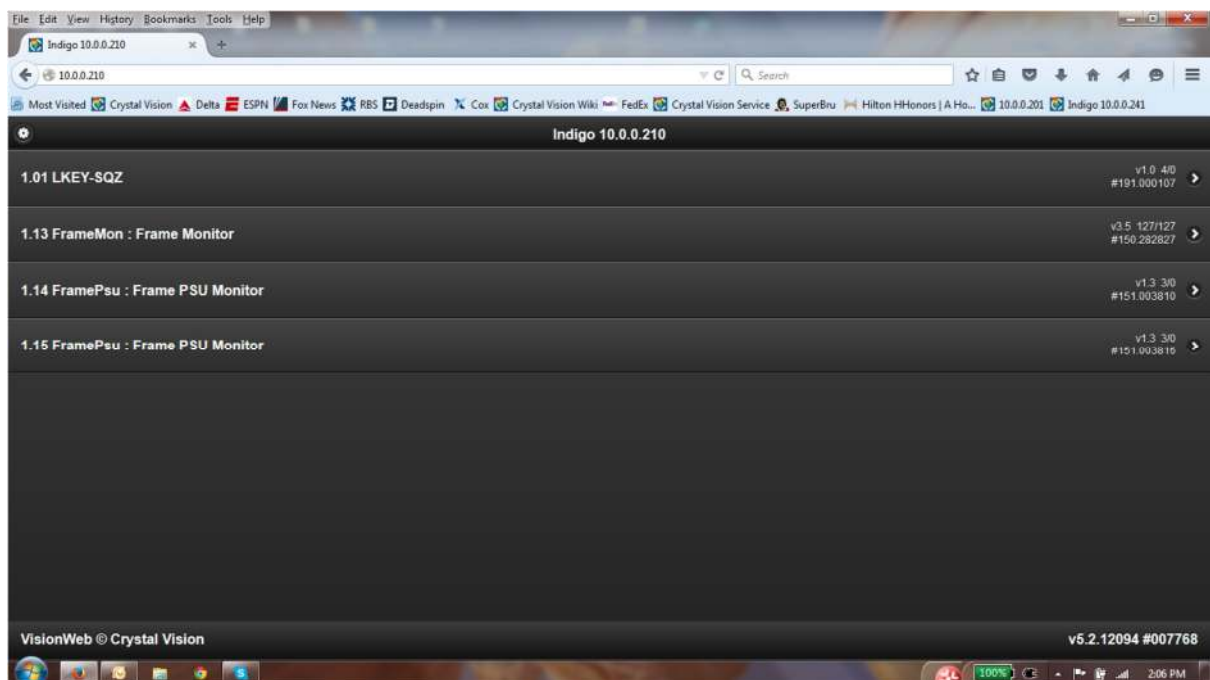
This is located next to the Power inlet sockets.



Indigo 1SE/1AE rear connectors

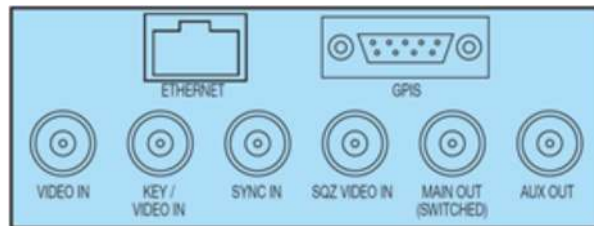
From any web browser you just need to type the address of the frame.

Crystal Vision frames are usually set to 10.0.0.201 by default but this could have changed and so ensure you know the correct IP address. Once you type the correct address you will see a list of items in the frame. Example shown below



LKEY SQZ Connections

The LKEY-SQZ uses the RM76 rear module which looks like this...



All video input and output connections support SDI for SD, HD (1080i / 720p) and HD-3G (1080p). All SDI inputs must be the same standard and timed within 1 line of each other.

VIDEO IN – SDI Input for source that will either serve as the fill if keying or background behind the squeezed video.

KEY/VIDEO IN – SDI input for key source.

SYNC IN – Connection for your house reference. Optional. Unit can also take Ref from SDI input.

SQZ VIDEO IN – SDI source for video to be squeezed by DVE. Usually your program feed.

MAIN OUT – This is the primary output of the device. Relay connects to SQZ VIDEO IN on power loss.

AUX OUT – This is the secondary output of the device.

ETHERNET – This port is only used to ftp the configuration .xml files to and from the device. Note the default network settings of the card (10.0.0.201) are the same as the frame and so do not connect it to the network if the Crystal Vision is also set to this address.

GPI – allows the recalling of presets and the trigger to playout scenes.

- Pin 1 - preset recall line a
- Pin 2 - preset recall line b
- Pin 3 - preset recall line c
- Pin 4 - Take Scene In
- Pin 5 - Take Scene Out
- Pin 6 - Tally (Scene In)
- Pin 14 – GND

Preset recall GPI are binary coded allowing presets 1 to 7 to be recalled. These can be configured within the web GUI controls to be either active high or active low level and either pulse or level triggered.

Take in / Out GPI's can be set to be active high or low. They should be held high/low for the period of the transition. Note - A double pulse of the GPI will cause an instant jump to the end of the action (in or out).

The frame D types can be used to connect to one or more cards for the same GPI controls. Please refer to the relevant INDIGO frame manual for details of those connections.

The frame GPIs indicated as "a" to "f" match the above pin number "1" to "6" given above.

LKEY SQZ control

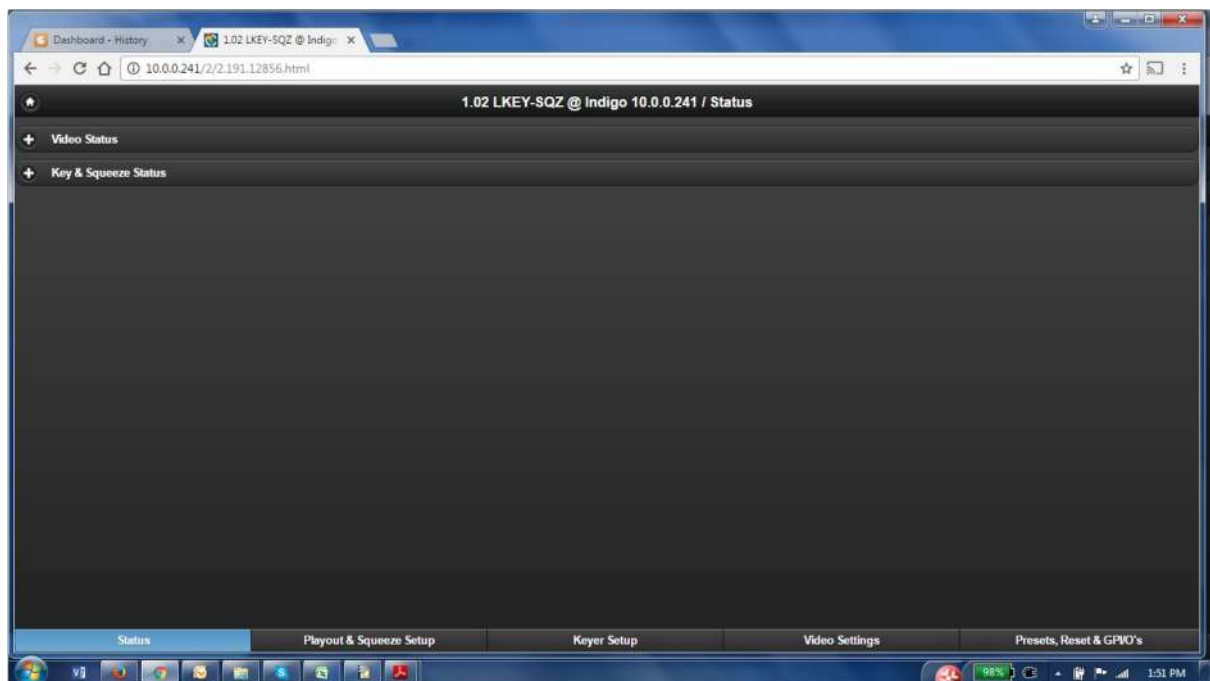
The web GUI allows the user to manually set a picture to be resized to create a Picture in Picture (PIP) effect. It allows the fading up and down of this PIP and parameters which would allow an external key signal to force some elements of the background image over the PIP.

For automated picture moves, eg. From full screen to PIP, there are a number of pre-programmed "Scenes". These Scenes are defined by XML files stored on the card. To change these programmed Scenes requires the use of FTP software to directly connect to the card via its direct Ethernet connection on the RM76. Consult Crystal Vision if you wish to change these scenes for instructions.

Web Control

From the main "frame menu", simply click on the LKEYSQZ to access the controls for the LKEY-SQZ.

There are five main menu sections shown along the bottom of the browser window. Selecting these menus then show the sub menu for each in the main window. Expanding each of the sub menus show the controls.



The main menus are Status, Playout & Squeeze Setup, Keyer Setup, Video Settings, and Presets Reset & GPIO's.

Status

The first main menu is Status. Expanding the sub menus here will show the Video Status of inputs to the cards as well as the Key & Squeeze Status showing whether the keyer is on or if a squeeze is in.

Playout & Squeeze setup

In the Playout & Squeeze Setup menu, you can control all the elements of the squeeze.

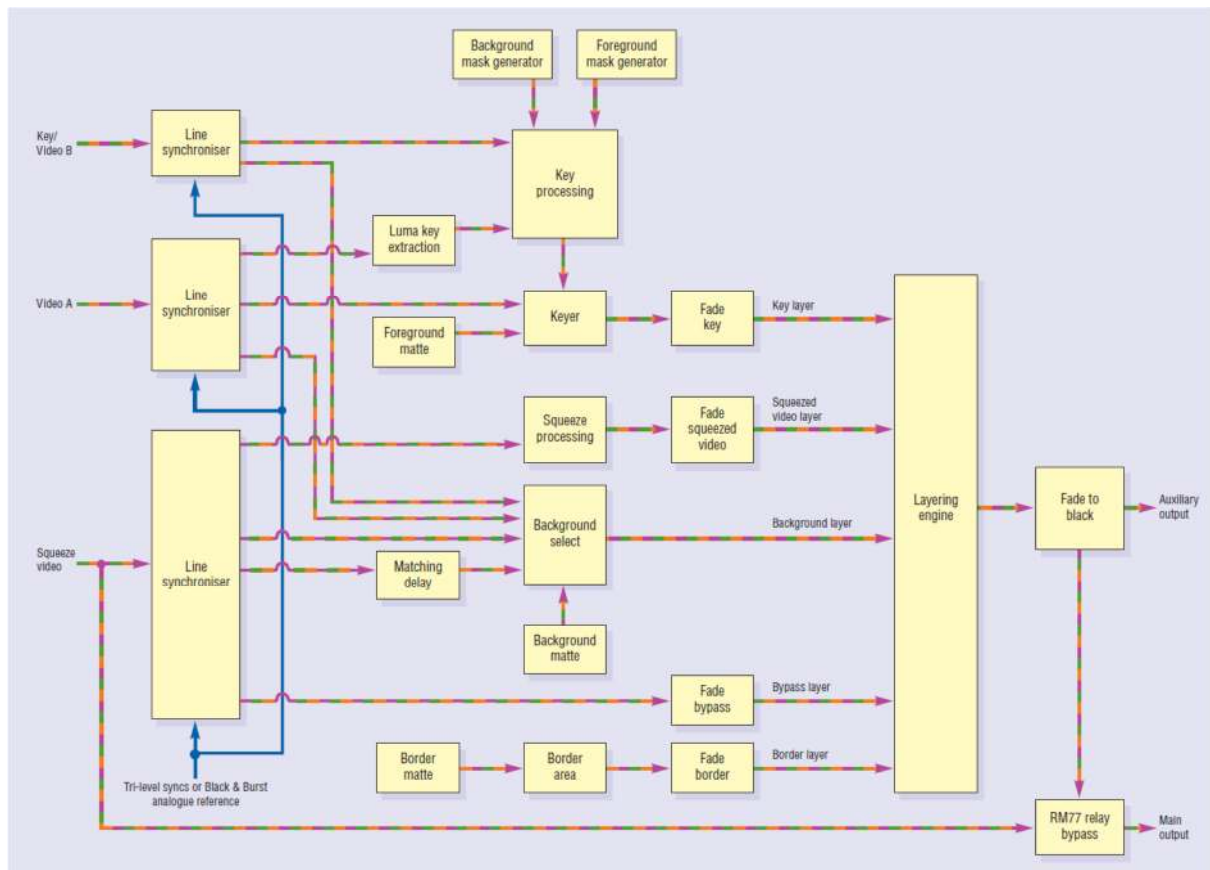
The Playout menu has Scene selection and Take controls. There are 16 predefined Scenes for many of the common tasks needed.

Pressing “Take in” should initial a move from full screen to a PIP effect. If this does not occur then you may need to check the other settings of the card to ensure it is configured correctly.

For example in the “Mixer and Output Signal” section you should ensure that ..

Bypass = 0, Squeeze = 100, Border = 0, Keyer = 0, fade to black = 100. These are the fade values used in the combiner section.

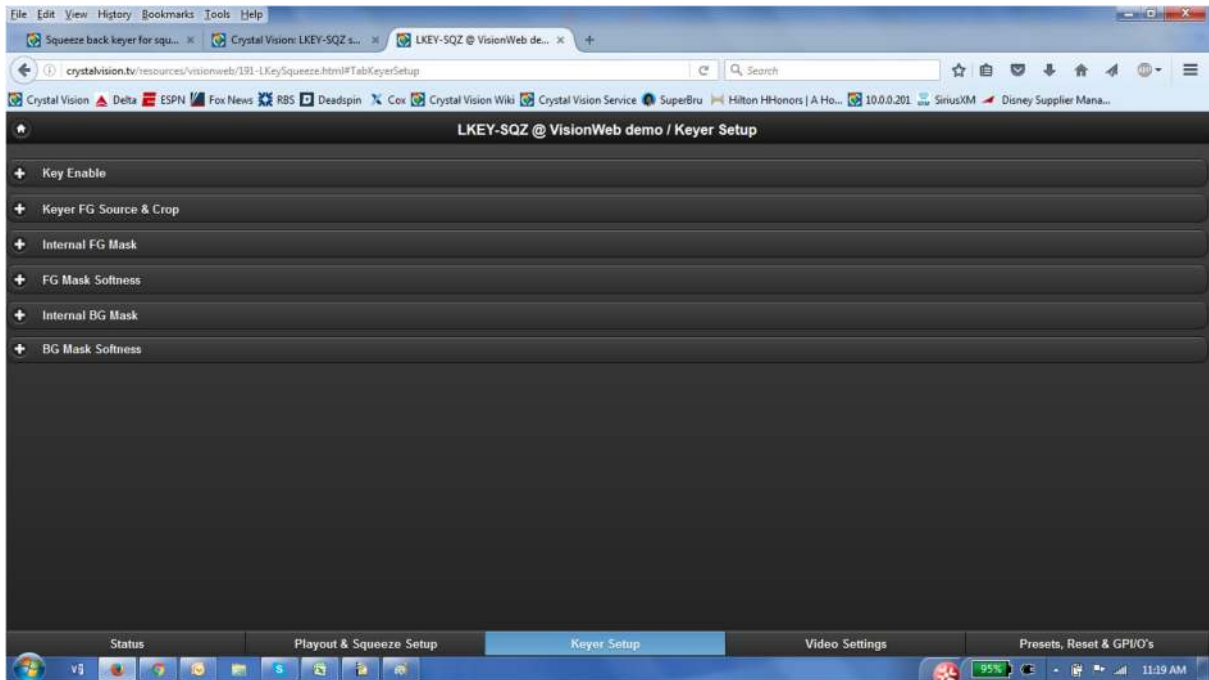
Referring to the Block Diagram may assist with understanding the purpose of these controls.



Keyer Setup

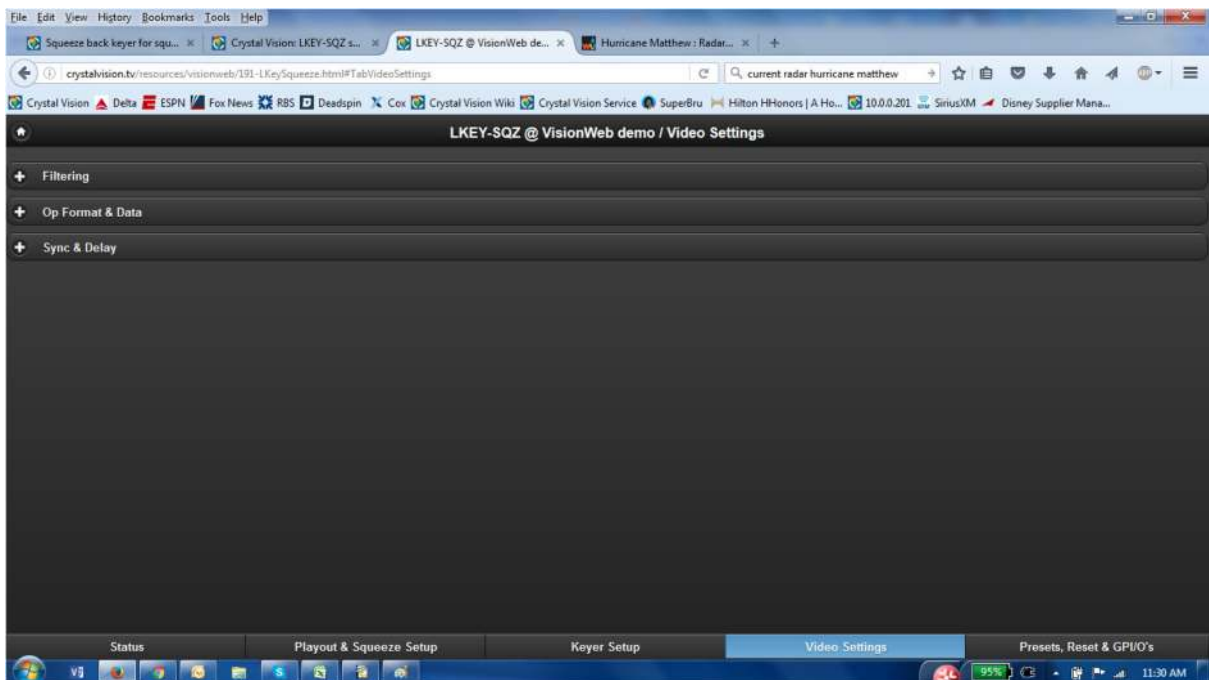
The Keyer Setup menu allows for enabling and settings for the downstream keyer function. It also includes all of the masks and cropping for the keyer.

This section is only relevant if you are using an external key signal to force background elements over the Squeezed video signal (or self keying something from the background).



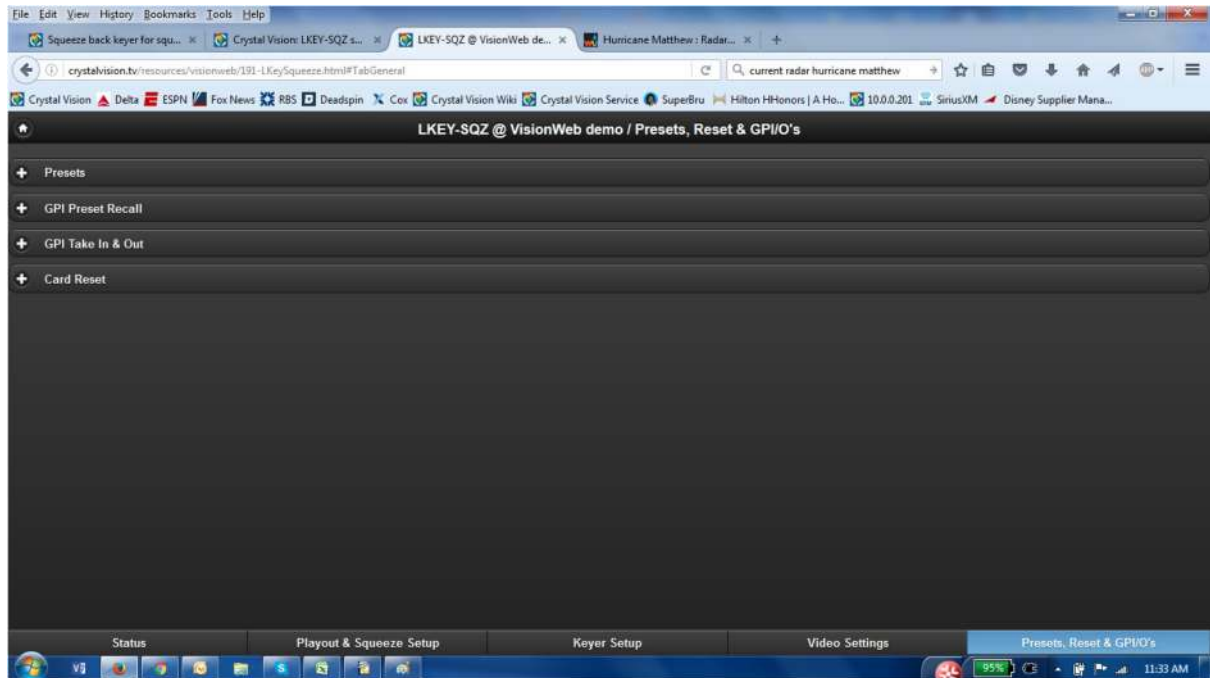
Video Settings

The Video Settings menu has all of the setups for output formats, ancillary data source and timing.



Presets, Resets & GPIO's

The Presets, Resets & GPIO's menu contains the presets menu for store and recall of presets. This menu has setup functions for GPIO and card reset back to factory settings.



Presets

The Scenes control the action the Picture Resizing and Keyer levels. The other settings of the card, for example which input to use as background, can be programmed into presets which are stored on the card. These presets can then be recalled by GPI if there is a need to change configurations.

Note – The board will power up in the same state that it was when power was removed.

Appendix 1 : Simple modification of the picture size in a Scene

This should only be attempted by someone with experience of FTP and XML file editing.

To download, modify and upload the amended files you need to connect to the board's Ethernet port which is on the Rear Module.

This port is only used to ftp the configuration .xml files to and from the device. Note the default network settings of the card (10.0.0.201) could be the same as the frame and so do not connect it to the network if the Crystal Vision is also set to this address.

Procedure

connect to the card via FTP Client, eg. Filezilla - 10.0.0.201 login with user name = cvision and password = cvision

navigate to : var\settings\gato\layer

Downloaded the "scene1.squeeze.layer.xml" to the PC.

Edit the file using text editor. Windows Notepad is suitable.

In the <layergrobdown> there are numbers for scale X=100000 which is 100% Y = 80000 which is 80%. This default move is to squeeze the picture up from the bottom. To squeeze it to a small box with same aspect ratio you need to edit these, eg. X and Y can be set to 75000 to get 75% squeeze.

Then you FTP the file back to the LKEY-SQZ board and reboot the board.

Note – the timing is 1000mS at the top of the files. You can change these if you want it quicker or slower.

For more complex editing of the scenes please contact Crystal Vision to discuss your requirements.