

CV-101

DVI Edge Blender for Projectors with Gamma Correction

User Manual



Made in Taiwan



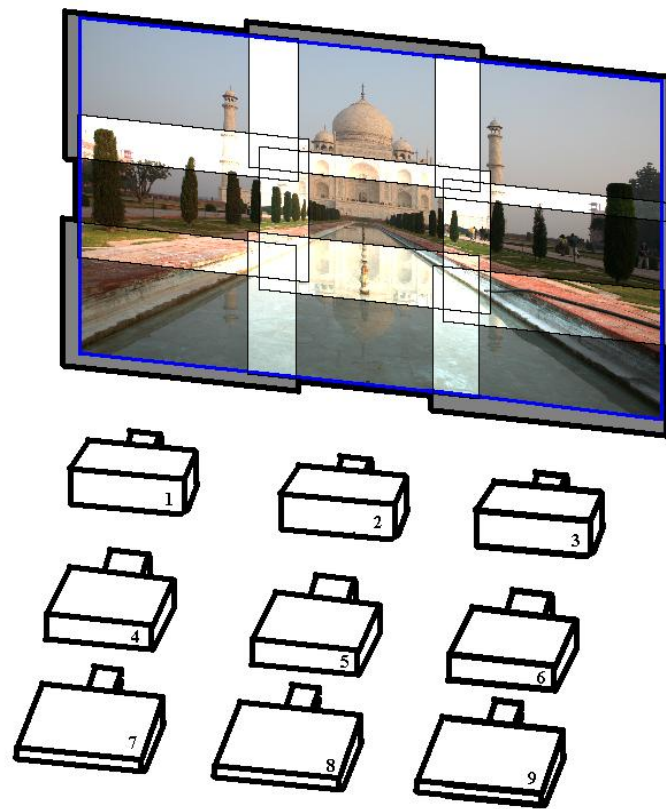
Safety and Notice

The **CV-101 DVI Edge Blender** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the CV-101 should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

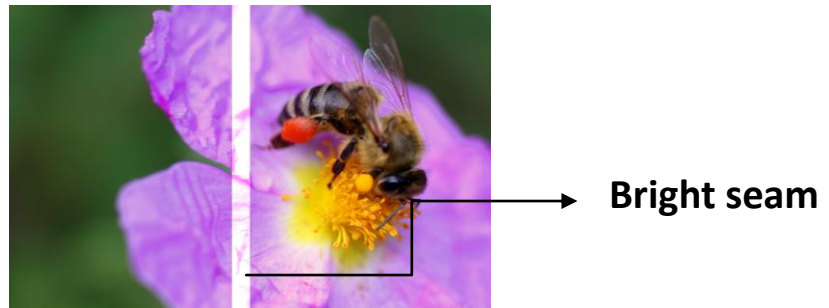
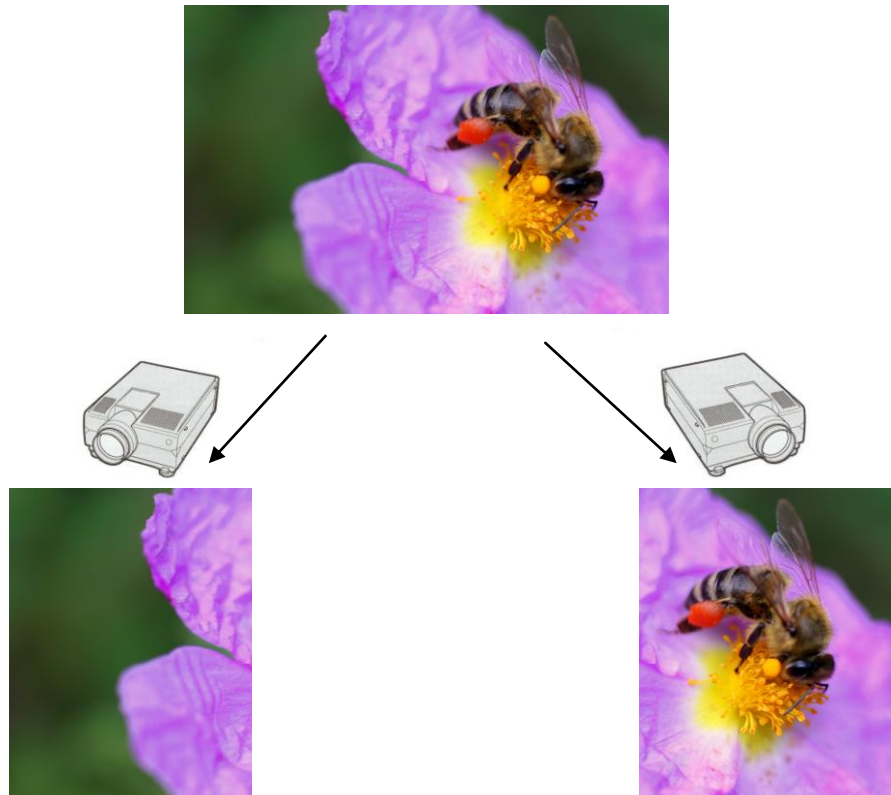
- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.



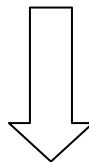
To create a single large display area using multiple projectors, it is unavoidable to overlap the images from projectors to get well tiled displays. Without perfect alignment, the resulting video especially for moving objects shows up with the objectionable gap or bright seam. To eliminate or lessen the effect causing by overlapped images such that the banding becomes invisible, modifying the video overlapping edges becomes a very important feature in such an application. CV-101 DVI Edge Blender offers users to adjust the overlapped range horizontally or vertically, single edge or both edges on the same display at the same time. In this way, eye-catching, super high resolution, and bright display can be readily achieved. Typical applications include education, advertising, virtual reality, digital cinema, and video game.



Setup for multiple projectors to create high resolution display



Edge Blending



Features

- DVI 1.1 compatible
- Fully HDCP compliant
- DVI video up to 165MHz
- Front panel LED indicators
- RS-232 and push button control
- Serial command available
- Easy installation

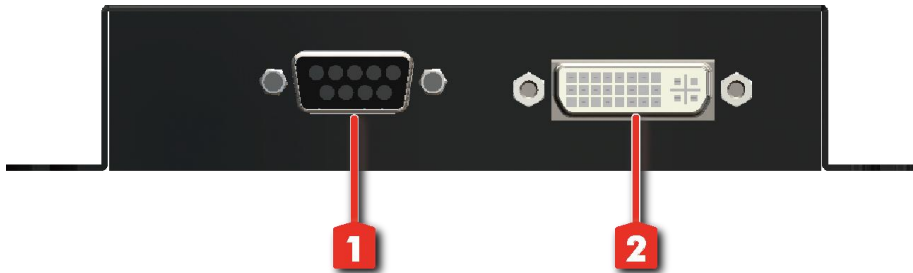
Technical Specifications

- Input Video Signal: 1.2 volts p-p
- Video Amplifier Bandwidth: 1.65Gbps
- Input DDC Signal: 5 volts p-p (TTL)
- Single Link Range: 1080p /1920x1200
- DVI Connector: DVI-I 29 pin female (digital only)
- RS-232 Connector: DSub-9
- Power Supply: 5V DC
- Power Consumption: 7 Watts (max)
- Dimensions: 93 x 113 x 26 / 3.7" x 4.4" x 1" (L x W x H)
- Weight: 310g / 11oz

Specifications

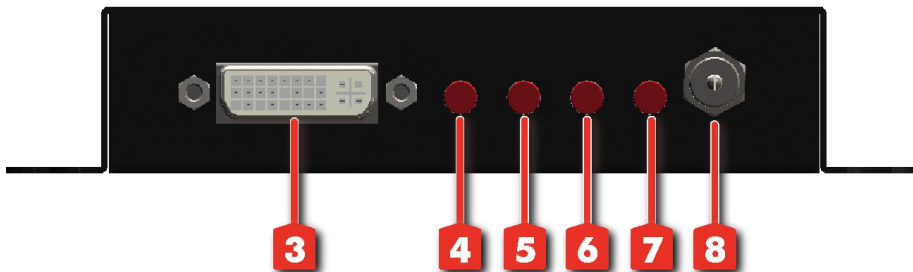
Model Name		CV-101
Technical		
Role of usage	Edge blending processor	
Video Format Support	DVI / HDMI	
Dual output support	DVI / HDMI	
HDCP compliance	Yes	
Video bandwidth	DVI/HDMI [Single-link 4.95Gbps]	
Video support	Up to 1920x1200@60 / 1600x1200@60	
Audio support	No	
Control	RS-232	
Embedded video mixer	No	
Cascadable	Yes	
Input TMDS signal	1.2 Volts [peak-to-peak]	
ESD protection	Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge]	
PCB stack-up	4-layer board [impedance control — differential 100Ω; single 50Ω]	
Input	1x DVI + 1x RS-232	
Output	1x DVI	
DVI connector	DVI-I [29-pin female, digital only]	
RS-232 connector	DE-9 [9-pin D-sub female]	
Mechanical		
Housing	Metal enclosure	
Dimensions (L x W x H)	Model	93 x 113 x 26mm [3.7" x 4.4" x 1"]
	Package	175 x 270 x 80mm [6.9" x 10.6" x 3.1"]
	Carton	450 x 370 x 300mm [1'6" x 1'3" x 1']
Weight	Model	310g [11oz]
	Package	640g [1.4 lbs]
Fixedness	Wall-mounting case with screws upon request	
Power supply	Inter-locked 5V 2A DC	
Power consumption	7 Watts [max]	
Operation temperature	0~40°C [32~104°F]	
Storage temperature	-20~60°C [-4~140°F]	
Relative humidity	20~90% RH [no condensation]	
Package Contents	1x CV-101 1x Installation software CD 1x User Manual	1x RS-232 to USB adapter 1x 5V 2A interlocked wall wart power adapter

Front View



1. RS-232
2. DVI Out

Rear View



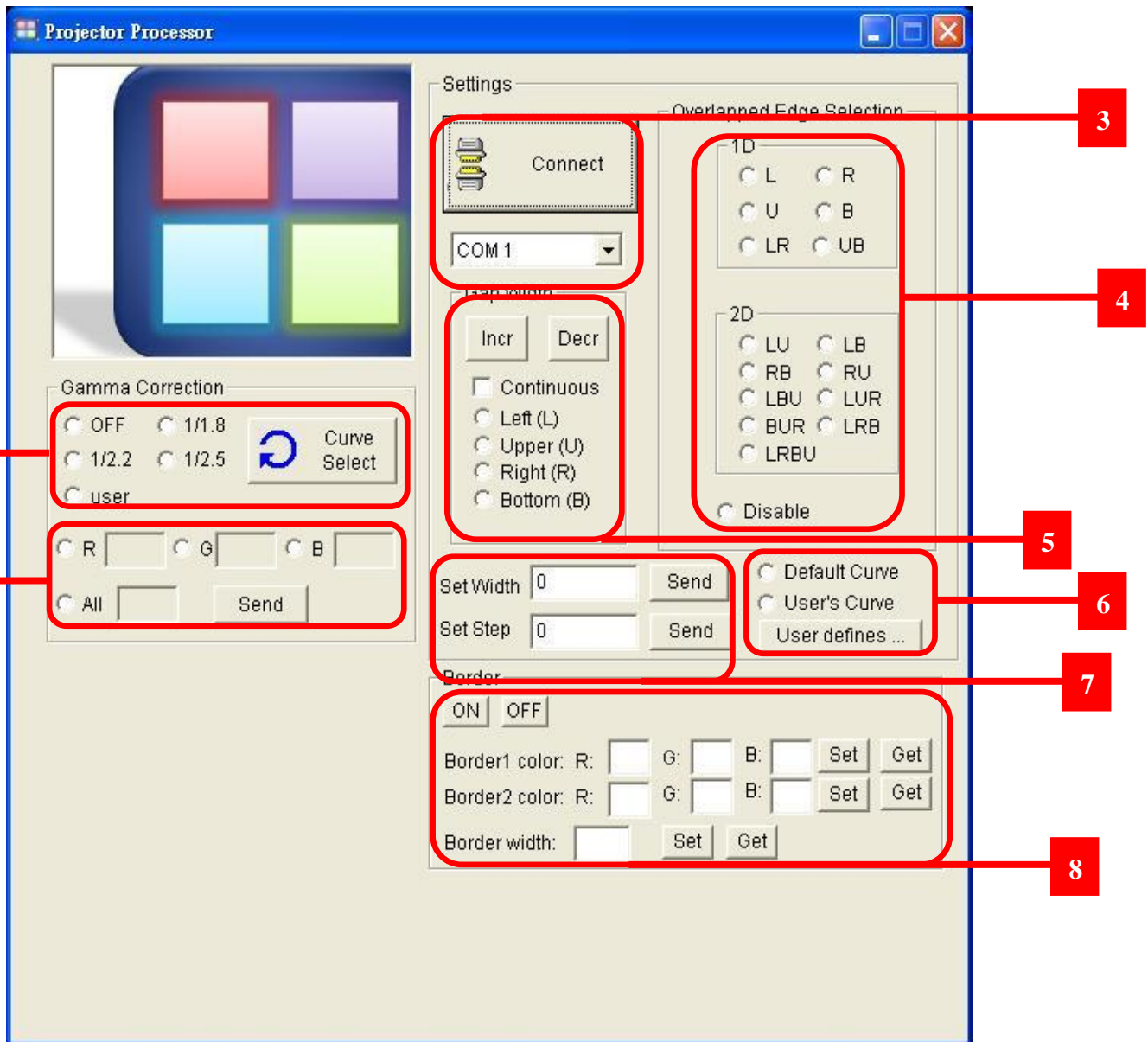
3. DVI IN
4. Decrease the gap width
5. Increase the gap width
6. Mode
7. Gamma Correction
8. 5V power

Mode circle:

1D Upper -> 1D Bottom -> 1D Left -> 1D Right -> 1D B-U -> 1D L-R -> 2D L-U -> 2D L-B ->
2D R-B -> 2D R-U -> 2D L-U-B -> 2D L-R-U -> 2D R-U-B -> 2D L-R-B -> 2D L-R-U-B

Edge Blending

In this section, we will demonstrate how to use software to present the video with overlapped and compensated edges through projectors. Coming with CV-101, the control software provides the easy way to control edge blending processor. This will expedite user's application for projector video wall settings.



1 Gamma Correction:

1 Click the radio button to select a Gamma table!

If push the “Curve Select” button, it will circular select one of the radio button.

2 With the “user” button being selected, this area turns active.

User can enter some value for R,G,B or All ,then click it's corresponding radio button and push "send" button.

3 Select the RS232 port and connect to device.

4 Chooses "ONE" desired direction in which blending effect for target video applied.
(where "L"=left, "R"=right, "U"=upper, "B"=bottom, "LU"=left-upper and vice versa.)

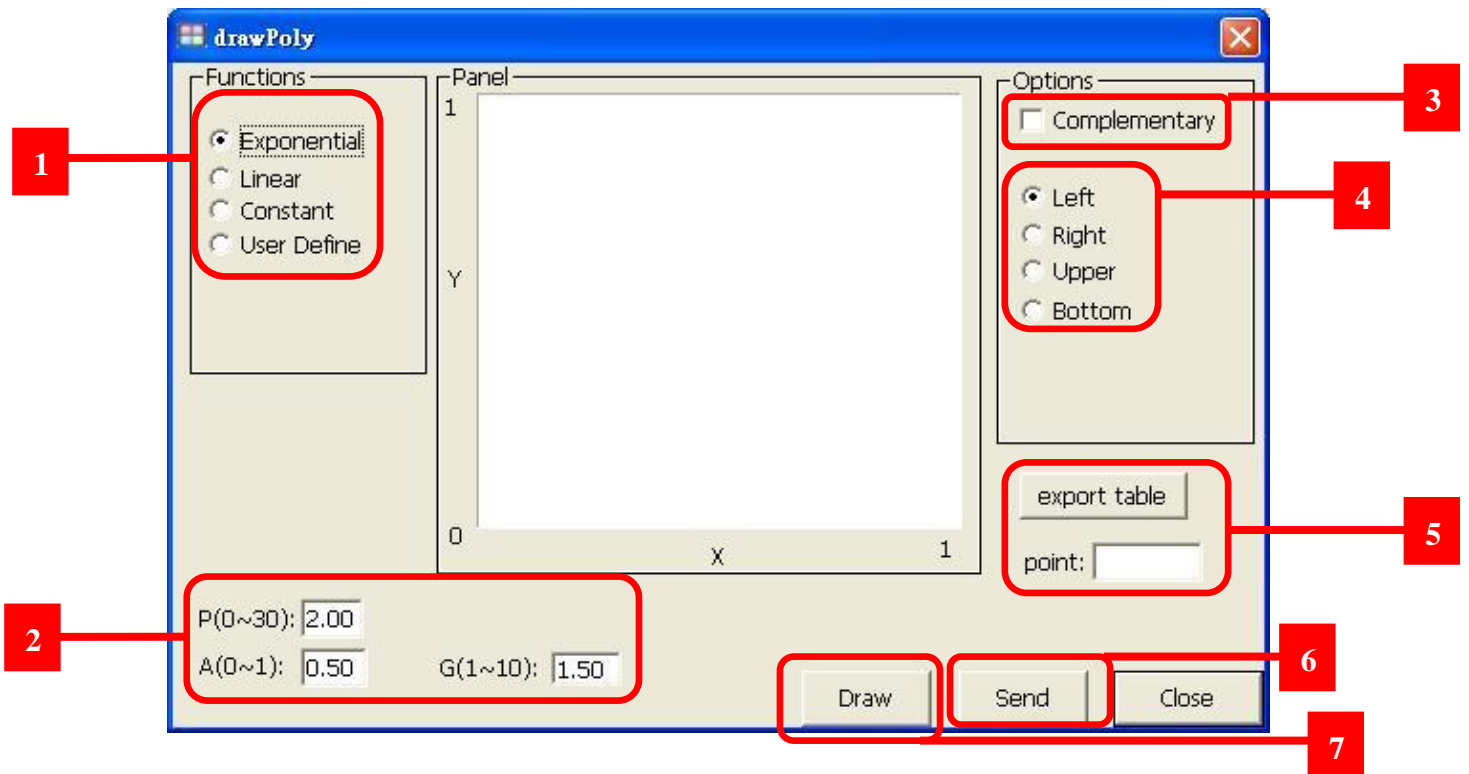
5 Select a direction first and then push the "Incr" and "Decr" to increase and decrease gap width of edge respectively.

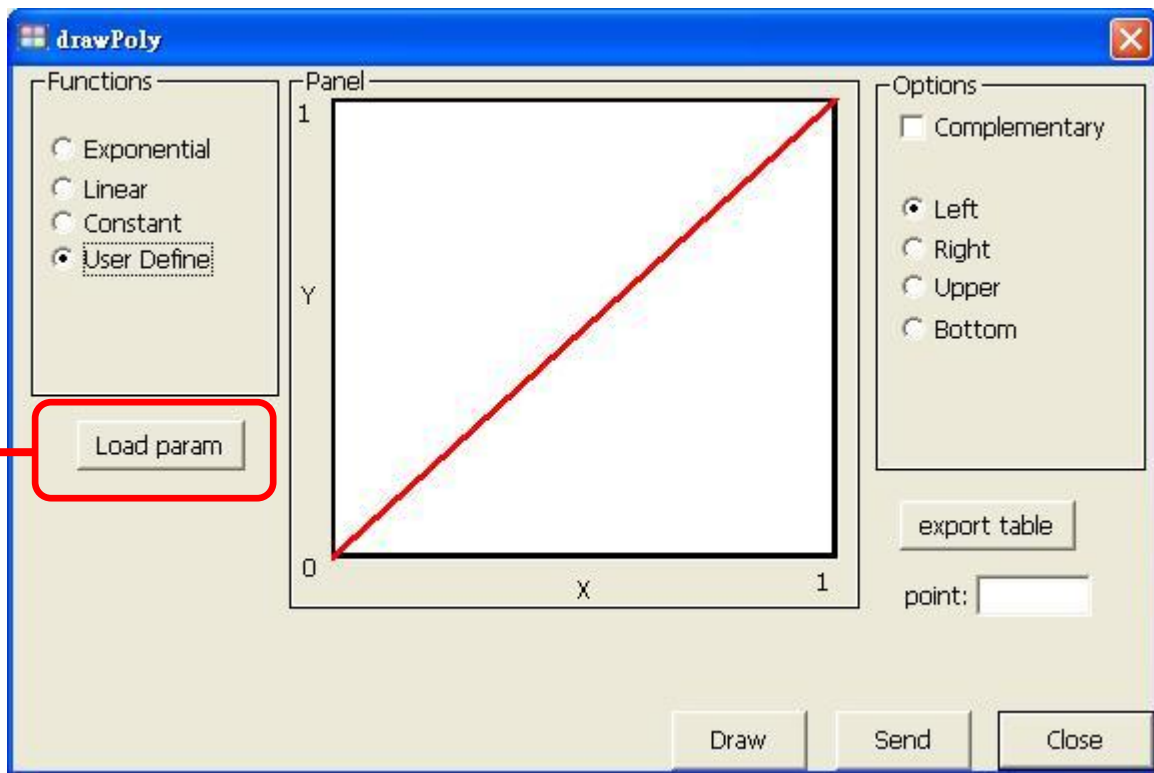
If checkbox "continuous" checked, press button "Incr" and "Decr" to add or reduce gap width continuously.

6 Select the curve blending edge that is defined by system default or user define.
We can press the "User defines" button to define curve in "drawPoly" dialogue.

7 Enter the values of width and steps of edge, press "send" as confirmed.

8 Border1: outer border. Border2: inner border.
Those borders are designed to help for edge alignment.

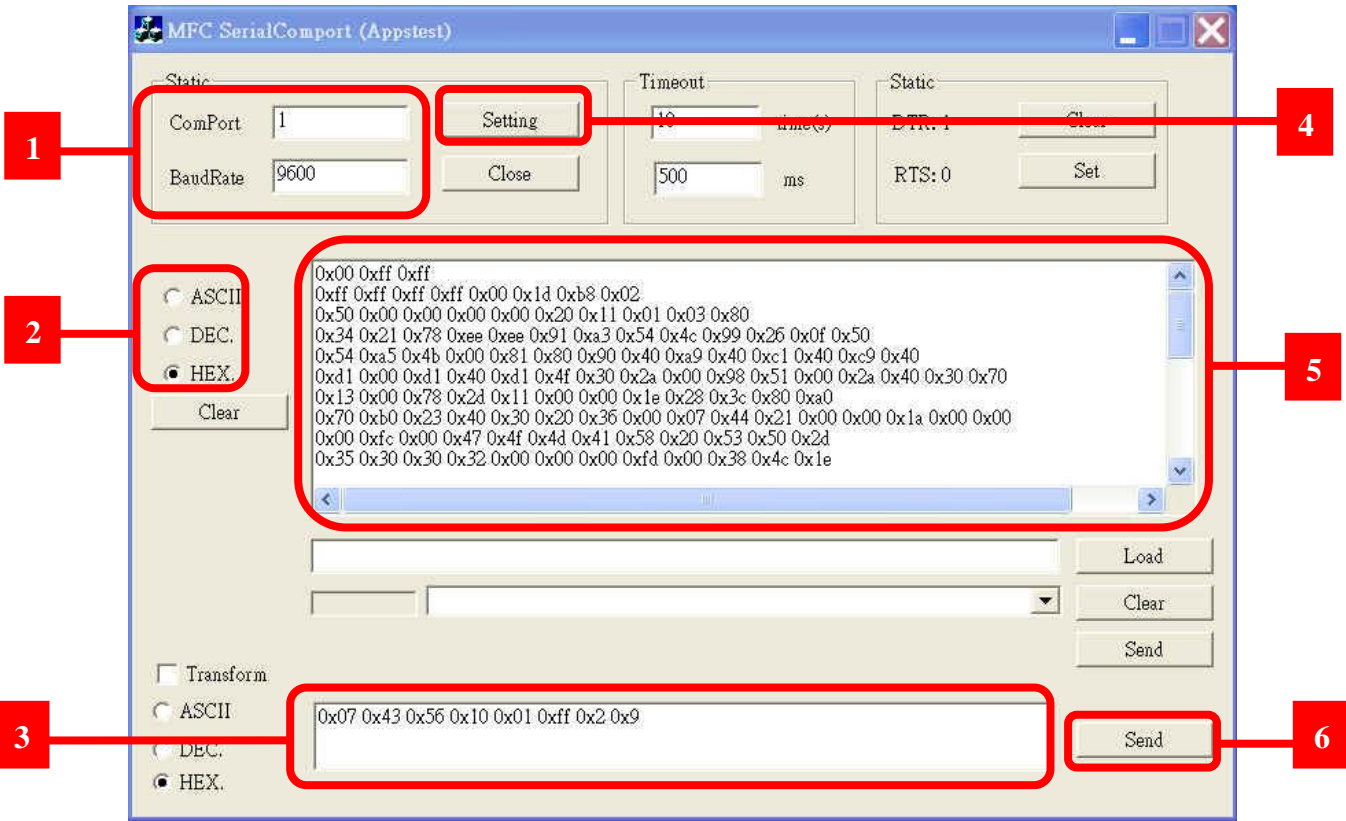




- 1 A total 4 functions available for user to set curve.
- 2 This is parameter of polynomial that user can setup within a limit.
- 3 If this item has been checked , the three functions will become it's complementary.
- 4 To apply specific curve to one individual side of target video, select one corresponding setting on left.
- 5 Button "export table" is available ONLY when "Exponential" function is selected.
This function exports the points of the exponential curve from 0.0~1.0 and will save in a txt file.
- 6 This button sends our setting to the device.
- 7 This button draws our setting to the panel.
- 8 Button "Load param" is available ONLY when "User Define" function is selected. Please notice that the loading of coefficients will take 2 minutes!

Serial Protocol

For some specific cases, integrate edge blender into a huge system can be expected. Therefore, in this section, the serial command set will be presented for users who would like to develop their own system with the new edge blending features. In order to assist software or hardware developers to explore all the serial commands, a test program for **MS Windows** is provided for ease of function testing. Through this toolkit, users can get themselves familiar with the structure of protocols, and hence speed up the integration to build up a more powerful system.



1 ComPort: Select the communication COM port which is connected to Edge blender!
BaudRate: 115200 BPS

2 Data Format: There are 3 data formats for returned or sent commands:
ASCII, Decimal (DEC), and Hexadecimal (HEX).

3 Command Window: Please type the command in the command for the testing.

4 **Setting:** While the RS-232 is successfully connected, this button shows “Setting”. To close the connection, simply click on this button again, and it will show “Open” instead.

5 **Message Window:** While stable communication channel is established and the command sent is accurate, the feedback acknowledge and data will be displayed here!

6 **Send:** To send the test serial command in Command Window to the chosen COMPort, user has to click on this button!

Sender issues the verification code			
Byte	Name	Value	Comment
0	Command Length	0x04	Reserved
1	Header #1	0x4d	Reserved
2	Header #2	0x4f	Reserved
3	Header #3	0x44	Reserved
Edge Blender feedback the confirmation code			
0	ACK #1	0xaa	Reserved
1	ACK #2	0x06	Reserved
2	ACK #3	0x43	Reserved
3	ACK #4	0x56	Reserved
4	ACK #5	0x10	Reserved
5	ACK #6	0x01	Reserved
6	ACK#7	0xB0	Reserved

Read Monitor EDID

Function Description:

To maximize the support, edge blender can read back the connected monitor's EDID for analysis or replaced the current EDID with the read EDID from monitor. This command will read monitor's EDID and store into flash!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x00	

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x07 0x43 0x56 0x10 0x01 0xff 0x00

Write Monitor EDID to Edge Blender

Function Description:

To maximize the support, edge blender can read back the connected monitor's EDID for analysis or replaced the current EDID with the read EDID from monitor. This command will replace edge blender 's EDID with previously read EDID!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x01	

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x07 0x43 0x56 0x10 0x01 0xff 0x01



Before writing monitor's EDID to replace the EDID in edge blender, please make sure to connect the monitor to the output port of edge blender and execute command ID 0!

Send Monitor EDID

Function Description:

This command will serially send out the read back monitor's EDID!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x02	

Receive

1	1 st byte of EDID		
2	2 nd byte of EDID		
255	Checksum of EDID		

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x07 0x43 0x56 0x10 0x01 0xff 0x02

Restore the default EDID for Edge Blender

Function Description:

This command restore the default EDID back!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x03	

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x07 0x43 0x56 0x10 0x01 0xff 0x03

Gamma Correction

Function Description:

This command will serially send out the read back monitor's EDID!

Command

Byte	Name	Value	Comment
0	Command Length	0x08	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x04	
7	Gamma Curve		0x00: Gamma Correction Off 0x09: 1/1.18 0x0a: 1/2.2 0x0b: 1/2.5

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x08 0x43 0x56 0x10 0x01 0xff 0x04 0x09

Blender Mode 1D

Function Description:

Select the overlapped area in the output. Please change the edge Blending mode to 1D first!

Command

Byte	Name	Value	Comment
0	Command Length	0x08	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x05	
7	Edge selection		0x00: Edge blending off 0x01: Left edge alone 0x09: Right edge alone 0x03: Upper edge alone 0x0b: Bottom edge alone 0x05: Left edge while both edges on 0x0d: Right edge while both edges on 0x07: Upper edge while both edges on 0x0f: Bottom edge while both edges on

Command Acknowledgement character

1	ACK	0x78	Command Done
---	-----	------	--------------

Example

0x08 0x43 0x56 0x10 0x01 0xff 0x05 0x0d

Edge Width

Function Description:

Setup the overlapped edge width

Command

Byte	Name	Value	Comment
0	Command Length	0x0a	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x06	
7	Edge position		0: Left 1: Upper 2: Right 3: Bottom
8	High byte of Width		
9	Low byte of Width		

Command Acknowledgement character

1	ACK	0x78	Command Done
---	-----	------	--------------

Example

0x0a 0x43 0x56 0x10 0x01 0xff 0x06 0x02 0x01 0x20



There are width limitations for all directions:

For left & right edges, the width is limited to be no more than 1/3 of the current active video width. For upper & bottom edges, the width is limited to be no more than 1/4 of the current active video height.

Get the active video size

Function Description:

Read the width (HActive) and height (VActive) of the current active video.

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x07	

Receive

1	Low byte of HActive		
2	High byte of HActive		
3	Low byte of VActive		
4	High byte of VActive		

Command Acknowledgement character

1	ACK	0x78	Command Done
---	-----	------	--------------

Example

0x07 0x43 0x56 0x10 0x01 0xff 0x07

Factory Reset

Function Description:

This command will bring all the flash based variables back to default including EDID!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x09	

Command Acknowledgement character

1	ACK	0x78	Command Done
---	-----	------	--------------

Example

0x07 0x43 0x56 0x10 0x01 0xff 0x09

Disable Push Buttons

Function Description:

This command will disable the front panel control! Notice that push button control will be automatically enable after reboot!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x0a	

Command Acknowledgement character

1	ACK	0x78	Command Done
---	-----	------	--------------

Example

0x07 0x43 0x56 0x10 0x01 0xff 0x0a

Enable Push Buttons

Function Description:

This command will enable the front panel control!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x0b	

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x07 0x43 0x56 0x10 0x01 0xff 0x0b

Learn EDID

Function Description:

This command will provide a quick way to learn EDID from monitor!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x0c	

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x07 0x43 0x56 0x10 0x01 0xff 0x0c

Simulated 'Increase' button

Function Description:

User can consider this command as the software version of 'Increase' button!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x0e	

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x07 0x43 0x56 0x10 0x01 0xff 0x0e

Simulated 'Decrease' button

Function Description:

User can consider this command as the software version of 'Decrease' button!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x0f	

Command Acknowledgement character

1	ACK	0x78	Command Done
---	-----	------	--------------

Example

0x07 0x43 0x56 0x10 0x01 0xff 0x0f

Simulated 'Gamma' button

Function Description:

User can consider this command as the software version of 'Gamma' button!

Command

Byte	Name	Value	Comment
0	Command Length	0x07	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x10	

Command Acknowledgement character

1	ACK	0x78	Command Done
---	-----	------	--------------

Example

0x07 0x43 0x56 0x10 0x01 0xff 0x10

Gradual step

Function Description:

The step or change rate for the selected edge!

Command

Byte	Name	Value	Comment
0	Command Length	0x09	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x11	
7	Edge selection		0x00: Left 0x01: Upper 0x02: Right 0x03: Bottom
8	Step		

Command Acknowledgement character

1	ACK	0x78	Command Done
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Example

0x09 0x43 0x56 0x10 0x01 0xff 0x11 0x02 0x03

Switch to 1D Mode

Function Description:

Change the edge blending mode to 1D!

Command

Byte	Name	Value	Comment
0	Command Length	0x09	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x17	
7	Parameter1	0x1b	
8	Parameter2	0x00	

Command Acknowledgement character

1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done

Example

0x09 0x43 0x56 0x10 0x01 0xff 0x17 0x1b 0x00

Switch to 2D Mode

Function Description:

Change the edge blending mode to 2D!

Command

Byte	Name	Value	Comment
0	Command Length	0x09	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x17	
7	Parameter1	0x0e	
8	Parameter2	0x11	

Command Acknowledgement character

1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done

Example

0x09 0x43 0x56 0x10 0x01 0xff 0x17 0x0e 0x11

Blender Mode 2D

Function Description:

Select the overlapped area in the output. Please change the edge Blending mode to 2D first!

Command

Byte	Name	Value	Comment
0	Command Length	0x09	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x17	
7	Parameter1	0x1b	
8	Edge selection		L:Left, R:Right , B:Bottom , U:Upper 0x5f: LU 0x6f: RU 0x7f: LUR 0x9f: LB 0xaf: RB 0xbf:LRB 0xdf:LBU 0xef: BUR 0xff:LRBU

Command Acknowledgement character

1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done

Example

0x09 0x43 0x56 0x10 0x01 0xff 0x17 0x1d 0x5f

Switch Input Source

Function Description:

Select the input source for display!

Command

Byte	Name	Value	Comment
0	Command Length	0x09	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x1a	0x1a:change input 0x17:save to flash
7	Parameter1	0x8a	0x8a:param1 0x0a:flash address
8	Parameter1	0x00	0x00:DVI 0x80:VGA

Command Acknowledgement character

1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done

Example

0x09 0x43 0x56 0x10 0x01 0xff 0x1a 0x8a 0x00

0x09 0x43 0x56 0x10 0x01 0xff 0x17 0x0a 0x00



Switch input command is only available for the module with VGA input.

Configurable Gamma Correction

Function Description:

Gamma Correction. Define by user!

Command

Byte	Name	Value	Comment
0	Command Length	0x0a	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x18	
7	Parameter1	0x8a	Decimal value
8	Parameter2	0x00	Decimal values fraction multiplication by 255
9	Parameter3	0x00	0x00: apply to r,g,b 0x01: apply to red 0x02: apply to green 0x03: apply to blue

Command Acknowledgement character

1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done

Example

Gamma Correction:2.1

Param1 = 2

Param2 = 0.1x255 = 25

0x0a 0x43 0x56 0x10 0x01 0xff 0x18 0x02 0x19 0x00

Configurable Curve Function :Exponential

Function Description:

User can define the blending edge's curve by exponential function!

$$f(x) = \begin{cases} (a(2x)^p)^{\frac{1}{G}} & \text{for } 0 \leq x \leq 0.5 \\ (1 - (1 - a)(2(1 - x))^p)^{\frac{1}{G}} & \text{for } 0.5 < x \leq 1 \end{cases}$$

Command

Byte	Name	Value	Comment
0	Command Length	0x0d	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x1d	
7	Parameter a	0xff	Type: Float(0~1.0) multiplication by 255
8	Parameter p(decimal)	0x01	Decimal value
9	Parameter p (decimal fraction)	0x19	Decimal values fraction multiplication by 255
10	type	0x00	
11	ascending	0x01	Default: 0x01: LEFT 0x00:RIGHT 0x01:UPPER 0x00:BOTTOM
12	direction	0x00	0x00: LEFT 0x01:RIGHT 0x02:UPPER 0x03:BOTTOM
13	Parameter g(decimal)	0x01	Decimal value
14	Parameter g (decimal fraction)	0x19	Decimal values fraction multiplication by 255

Command Acknowledgement character			
1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done
Example			
a:0.1 p:5.1 Parameter a = 0.1x255 = 25 Parameter p(decimal) = 5 Parameter p(decimal fraction) = 0.1x255=25 0x0d 0x43 0x56 0x10 0x01 0xff 0x1d 0x19 0x05 0x19 0x00 0x01 0x00 0x01 0x19			

Configurable Curve Function :Linear

Function Description:

User can define the blending edge's curve by linear function!

Command

Byte	Name	Value	Comment
0	Command Length	0x0d	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x1d	
7	Parameter	0x00	unused
8	Parameter	0x00	unused
9	Parameter	0x00	unused
10	type	0x01	
11	ascending	0x01	Default: 0x01: LEFT 0x00:RIGHT 0x01:UPPER 0x00:BOTTOM
12	direction	0x00	0x00: LEFT 0x01:RIGHT 0x02:UPPER 0x03:BOTTOM

Command Acknowledgement character

1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done

Example

0x0d 0x43 0x56 0x10 0x01 0xff 0x1d 0x00 0x00 0x00 0x01 0x01 0x00

Configurable Curve Function :Constant

Function Description:

User can define the blending edge's curve by constant value!

Command

Byte	Name	Value	Comment
0	Command Length	0x0d	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x1d	
7	Parameter constant	0x00	Range(0~1) multiplication by 127
8	Parameter	0x00	unused
9	Parameter	0x00	unused
10	type	0x03	If direction is "ALL" Type = 0x02
11	ascending	0x01	0x01
12	direction	0x00	0x00: LEFT 0x01:RIGHT 0x02:UPPER 0x03:BOTTOM 0x04:ALL

Command Acknowledgement character

1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done

Example

0x0d 0x43 0x56 0x10 0x01 0xff 0x1d 0x50 0x00 0x00 0x03 0x01 0x00

User-defined Blending Coefficients

Function Description:

Before executing this function, users MUST load the coefficients using the specified program! After loading the coefficients from the specified software into the edge blender's flash, users can therefore trigger this set of coefficient through this command.

Command

Byte	Name	Value	Comment
0	Command Length	0x0d	
1	Header #1	0x43	Reserved
2	Header #2	0x56	Reserved
3	Header #3	0x10	Reserved
4	Header #4	0x01	Reserved
5	Header #5	0xff	Reserved
6	Command ID	0x1d	
7	Parameter	0x00	unused
8	Parameter	0x00	unused
9	Parameter	0x00	unused
10	type	0x04	
11	ascending	0x01	0x01
12	direction	0x00	0x00: LEFT 0x01:RIGHT 0x02:UPPER 0x03:BOTTOM 0x04:ALL

Command Acknowledgement character

1	ACK	0x4c	Command receive
2	ACK	0x78	Command Done

Example

0x0d 0x43 0x56 0x10 0x01 0xff 0x1d 0x00 0x00 0x00 0x04 0x01 0x00

Hardware Installation

1. Connect your DVI/HDMI sources to the DVI input connector.
2. Power up the CV-101.
3. Adjust the overlap range using RS-232 or front panel push buttons.

Notice

1. In order to have the best alignment between two images, a perfectly flat project screen is necessary to assure proper alignment.
2. Matched projectors with solid and adjustable mountings are strongly recommended. Projectors with features such as key stone correction are preferable.
3. The gamma correction has 3 sets of parameters installed: 1/1.8, 1/2.2, 1/2.5.
4. Check sum : Check sum = Transmission data amount %256.

Limited Warranty

The SELLER warrants the **CV-101 DVI Edge Blender** to be free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. Also, the technical information contained herein regarding the CV-101 features and specifications is subject to change without further notice.