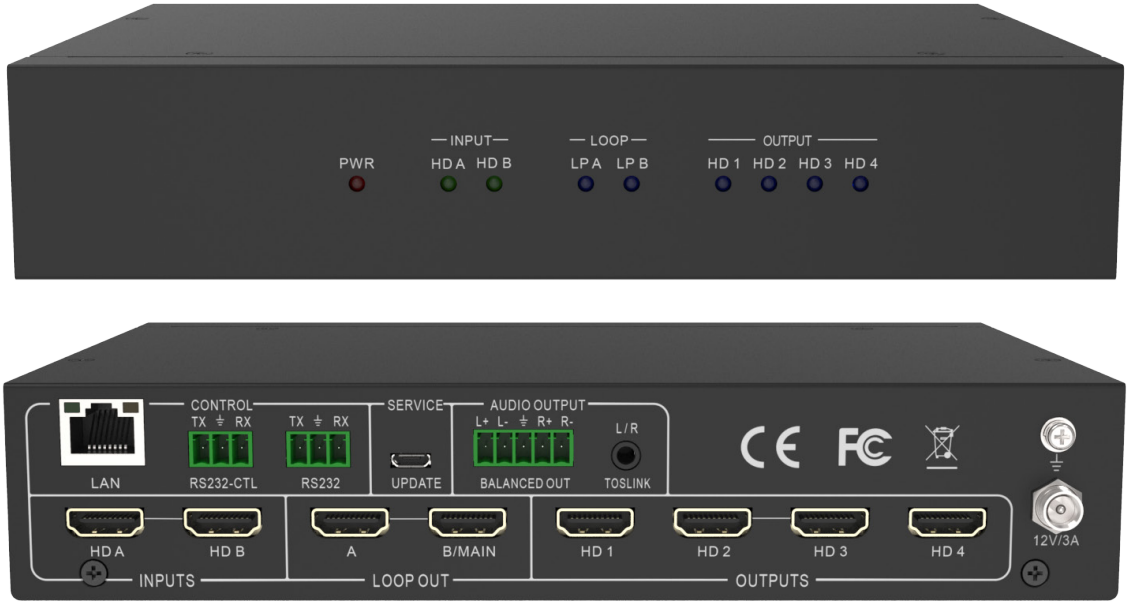
PS-328

Protocolo RS232 ASII



www.solidview.com.co

Contenido

1. Serial Communication Protocol Format

Baud Rate: 57600

Data bits: 8

Parity: None

Stop bits: 1

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET/GET	Space	The target that handles this command.	Space	Command type	[Parameter1] [Parameter2]	↵ This is ASCII carriage return 0x0d

Notes:

Space is the ASCII character 0x20

↵Represents the ASCII character 0x0d

All Return messages are always terminated by CR/LF, the ASCII characters 0x0d 0x0a

All items shown in square brackets, [], are optional.

Any SET command that contains leading zeroes should not include the leading zeros in any response message.

The value ranges for certain commands are not given, please state and minimum and maximum values for each command that uses a numerical value range.

2. Software Version (Read only)

Get the software version of input/output channels:

Send: GET OUT1 VERSION↵ Receive: OUT1 VERSION 2019/01/01-12:00:00

Send: GET SYS VERSION↵ Receive: SYS VERSION 2019/01/01-12:00:00

3. Input Channel Command

3.1 Input Signal format (Read only)

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
GET	Space	INx x is the input port number	Space	IN-SIGNAL	Send: Null (0 byte)	↵

GET input signal format of input board:

Send: GET IN1 IN-SIGNAL↵ Receive: IN1 IN-SIGNAL HDMI@3840x2160p60

IN1= INPUT A port

IN2= INPUT B port

4. Output Channel Command

4.1 Output Type

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
GET/SET	Space	INx x is the output port number	Space	OUT-TYPE		↵

A. GET output type of output board: **4 / 12**

Send: GET OUT1 OUT-TYPE↵ Send: GET OUT 2 OUT-TYPE↵

Receive: OUT1 OUT-TYPE UHD-HDMI↵ Receive: OUT2 OUT-TYPE UHD-DVI↵

B. SET output type of output board:

Send: SET OUT1 OUT-TYPE UHD-HDMI↵ Receive: OUT1 OUT-TYPE UHD-HDMI↵

Send: SET OUT2 OUT-TYPE UHD-DVI↵ Receive: OUT01 OUT-TYPE UHD-DVI↵

NOTE:

Support Types:

UHD-HDMI: HDMI without HDCP

UHD-DVI: DVI without HDCP

UHD-HDMI-1.4: HDMI, HDCP1.4

UHD-HDMI-2.2: HDMI, HDCP2.2

4.2 Output Signal format

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (N bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
GET/SET	Space	OUTx	Space	OUT-SIGNAL		↵

A. GET output signal format of output board:

Send: GET OUT1 OUT-SIGNAL↵ Receive: OUT1 OUT-SIGNAL UHD-HDMI@4K2Kp60↵

B. SET output signal format of output channel:

Send: SET OUT1 OUT-SIGNAL 1920x1080p60↵ Receive: OUT1 OUT-SIGNAL UHD-HDMI @1920x1080p60↵

NOTE:

1. Supported output resolution:

3840x2160p60, 3840x2160p50, 1920x1200p60, 1920x1080p60,
1920x1080p50, 1600x1200p60, 1400x1050p60, 1366x768p60, 1360x768p60,
1280x1024p60, 1280x768p60, 1280x720p50, 1280x720p60, 1024x768p60

4.3 Brightness Setting

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
SET/GET	Space	OUTx	Space	BRIGHTNESS		↵

A. GET brightness of output board:
Send: GET OUT1 BRIGHTNESS↵ Receive: OUT1 BRIGHTNESS 50
B. SET brightness of output board:
Send: SET OUT1 BRIGHTNESS 50↵ Receive: OUT1 BRIGHTNESS 50

4.4 Contrast Setting

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
SET/GET	Space	OUTx	Space	CONTRAST		↵

A. GET contrast of output board:
Send: GET OUT1 CONTRAST↵ Receive: OUT1 CONTRAST 50
B. SET contrast of input board:
Send: SET OUT1 CONTRAST 50↵Receive: OUT1 CONTRAST 50

4.5 Saturation Setting

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or 1/2/3 bytes)	Command tail (1 byte)
SET/GET	Space	OUTx	Space	SATURATION		↵

A. GET saturation of output board:
Send: GET OUT1 SATURATION↵ Receive: OUT1 SATURATION 50
B. SET saturation of output board:
Send: SET OUT1 SATURATION 50↵Receive: OUT1 SATURATION 50

4.6 Sharpness Setting

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
SET/GET	Space	OUTx	Space	SHARPNESS		↵

A. GET sharpness of output board:

Send: GET OUT1 SHARPNESS↵ Receive: OUT1 SHARPNESS 50↵

B. SET sharpness of output board:

Send: SET OUT1 SHARPNESS 50↵Receive: OUT1 SHARPNESS 50↵

4.7 Picture Quality Reset

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
SET	Space	OUTx	Space	PQ-RESET	Null (0 byte)	

A. Reset the picture quality of output board:

Send: SET OUT1 PQ-RESET↵ Receive: OUT1 PQ-RESET↵

4.8 Test Pattern

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
GET/SET	Space	OUTx	Space	TSP		↵

Send: GET OUT1 TSP↵ Receive: OUT1 TSP ON↵

Send: SET OUT1 TSP OFF↵ Receive: OUT1 TSP OFF↵

4.9 Mirror

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (0 or N bytes)	Command tail (1 byte)
GET/SET	Space	OUTx	Space	MIRROR		↵

Send: GET OUT1 MIRROR↵Receive: OUT1 MIRROR ON↵

Send: SET OUT1 MIRROR OFF↵Receive: OUT1 MIRROR OFF↵

5 Routing command

5.1 Video routing

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	INx	Space	VIDEO	OUTx or ALL	

A. Set video route: Input port-x/xx/xxx switch to output port-a/b/c… , or all output ports

For example, SET video route: Input port 1 switch to output port 1

Send: SET IN1 VIDEO OUT1↵ Receive: IN1 VIDEO OUT1↵

For example, SET video route: Input port 1 switch to all output ports

Send: SET IN1 VIDEO ALL↵ Receive: IN1 VIDEO ALL↵

Here IN1= INPUT A port
IN2= INPUT B port

5.2 LR and Toslink Audio out

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	IN1 Or IN2	Space	AUDIO-ROUTE	LR	↵

Send: SET IN1 AUDIO-ROUTE LR↵Receive: IN1 AUDIO-ROUTE LR↵

Send: SET IN2 AUDIO-ROUTE LR↵Receive: IN2 AUDIO-ROUTE LR↵

Here IN1= INPUT A port
IN2= INPUT B port
LR = LR and TOSLINK out

5.3 B/MAIN loop out

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	IN1 or IN2	Space	LOOP-OUT	MAIN	↵

Send: SET IN1 LOOP-OUT MAIN↵ Receive: IN1 LOOP-OUT MAIN ↵

Here IN1= INPUT A port
IN2= INPUT B port
MAIN = MAIN/B loo out

5.4 Recall/Save mode of route

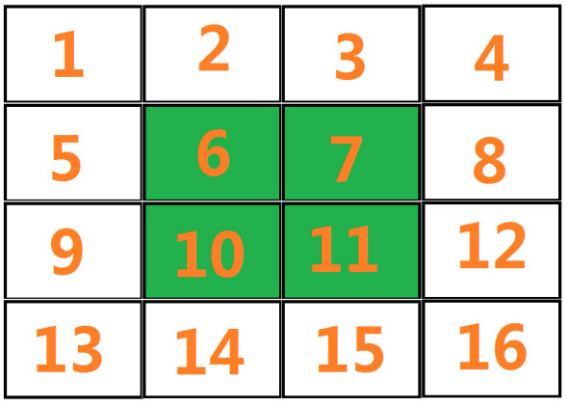
Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	ROUTE-MODE	xx xx is the mode value	↵

Send: GET SYS ROUTE-MODE 1↵ Receive: SYS ROUTE-MODE 1↵
Send: SET SYS ROUTE-MODE 1 ↵ Receive: SYS ROUTE-MODE 1↵

6 TV-WALL

6.1 Set TV-WALL:

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	OUTx	Space	TVWALL	Line, Column, P,Q, Margin-Left, Margin-Right, Margin-Top, Margin-Bottom, Input:	↵



Picture-1 for example: The entire TV wall consists of 16 screens, placed in 4 rows and 4 columns. Screens 6/7/10/11 make up a 2x2 splice.
The parameter of the splice which make up by Screens 6/7/10/11:

Line： How many rows of the Digital Information Display, picture-1 for example, 2

Column： How many columns of the Digital Information Display left picture for example, 2

P: The row number of the current output connected: Screen 6: 1, Screen 7: 1, Screen 10: 2, Screen 11: 2
Q: The column number of the current output connected: Screen 6: 1, Screen 7: 2, Screen 10: 1, Screen 11: 2
The border of each screen is 20 pixels for example:
Margin-Left: The width of the left margin (pixels): Screen 6: 0, Screen 7: 20, Screen 10: 0, Screen 11: 20
Margin-Right: The width of the right margin (pixels): Screen 6: 20, Screen 7: 0, Screen 10: 20, Screen 11: 0
Margin-Top: The width of the top margin (pixels): Screen 6: 0, Screen 7: 0, Screen 10: 20, Screen 11: 20
Margin-Bottom: The width of the bottom margin (pixels): Screen 6: 20, Screen 7: 20, Screen 10: 0, Screen 11: 0
Input: Which input route to the current panel
A. SET TV-WALL mode of one output port

Picture-1 Screen 6/7/10/11, and the source input is input 1 For example:

Send: SET OUT6 TVWALL 2 2 1 1 0 20 0 20 1↵ Receive: OUT6 TVWALL 2 2 1 1 0 20 0 20 1

Send: SET OUT7 TVWALL 2 2 1 2 20 0 0 20 1↵ Receive: OUT7 TVWALL 2 2 1 2 20 0 0 20 1

Send: SET OUT10 TVWALL 2 2 2 1 0 20 20 0 1↵ Receive: OUT10 TVWALL 2 2 2 1 0 20 20 0 1

Send: SET OUT11 TVWALL 2 2 2 2 20 0 20 0 1↵ Receive: OUT11 TVWALL 2 2 2 2 20 0 20 0 1

Sending these four commands will create a 2x2 splice

B. How to Exit TV wall mode:

For example Exit TV-WALL combination of output port 6,7,10,11

Send: SET OUT6 TVWALL 1 1 1 1 0 00 0 00 1↵ Receive: OUT6 TVWALL 1 1 1 1 0 00 0 00 1↵

Send: SET OUT7 TVWALL 1 1 1 1 0 00 0 00 1↵ Receive: OUT7 TVWALL 1 1 1 1 0 00 0 00 1↵

Send: SET OUT10 TVWALL 1 1 1 1 0 00 0 00 1↵ Receive: OUT10 TVWALL 1 1 1 1 0 00 0 00 1↵

Send: SET OUT11 TVWALL 1 1 1 1 0 00 0 00 1↵ Receive: OUT11 TVWALL 1 1 1 1 0 00 0 00 1↵

7 System command

7.1 Device IP

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	IP	AT+WANN=mode,address, mask,gateway	↵

A. GET the device size:

For example, GET the device IP (MAC: D8B04CB947DF)

Send: GET SYS IP↵Receive: SYS IP D8B04CB947DF DHCP,192.168.0.119,255.255.255.0,192.168.0.1↵

Send: GET SYS IP↵Receive: SYS IP D8B04CB947DF STATIC,192.168.0.222,255.255.255.0,192.168.0.24↵

B. SET the device IP:

For example, Set the device IP to STATIC 192.168.1.1

Send: SET SYS IP STATIC,192.168.0.222,255.255.255.0,192.168.0.1↵

Receive: SYS IP STATIC,192.168.0.222,255.255.255.0,192.168.0.1↵

For example, Set the device IP to HDCP (auto obtain)

Send: SET SYS IP DHCP↵Receive: SYS IP DHCP↵

7.2 System Reset

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	SYS	Space	RESET	ALL	

A. SET (Reset) the device :

For example, Set (Reset) the device

Send: SET SYS RESET ALL↵ Receive: SYS RESET ALL↵

7.3 Device ID (only used on special condition)

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	ID		↵

Set the device ID, when in cascade mode or chain mode, need to set each device ID, default ID is 1.

For example: Two VW4K24 work in cascade mode, then the first unit device ID is 1, the first unit's first output port index is 1, the second unit device ID is 2, the second unit's first output port index is 5. Need to set the device ID before installation alone.

Send: SET SYS ID 2↵ Receive: SYS ID 2↵

Send: GET SYS ID ↵ Receive: SYS ID 2

7.4 First Output port index (only used on special condition)

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	FPI		↵

Set the first output port index, when in cascade mode or chain mode, need to set each device first output port index. The default first output port index is 1.

For example: Two VW4K24 work in cascade mode, then the first unit device ID is 1, the first unit's first output port index is 1, the second unit device ID is 2, the second unit's first output port index is 5. Need to set the device ID of each unit before installation alone.

Send: SET SYS FPI 1↵Receive: SYS FPI 1↵

Send: GET SYS FPI ↵Receive: SYS FPI 1

8 CEC commands

8.1 Auto Power on by CEC

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET/GET	Space	SYS	Space	AUTO-POWERON	ON, OFF	↵

This command to Enable/Disable Auto Power function to control sources and displayers by CEC

Send: SET SYS AUTO-POWERON ON↵ Receive: SYS AUTO-POWERON ON↵

Send: GET SYS AUTO-POWERON↵ Receive: SYS AUTO-POWERON ON↵

8.2 Power on/Off Displayer by CEC

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	OUTx	Space	POWER	ON/OFF	↵

Send: SET OUT1 POWER ON↵ Receive: OUT1 POWER ON↵

8.3 Volume +/Volume-/Mute/Unmute with Displayer

Operation type (3 byte)	Spacer (1 byte)	Target (N bytes)	Spacer (1 byte)	Command type (10 bytes)	Command parameters (N bytes)	Command tail (1 byte)
SET	Space	OUTx	Space	AUDIO	VOLUME+, VOLUME-, MUTE	↵

For example:

Send: SET OUT1 AUDIO VOLUME+↵Receive: OUT1 AUDIO VOLUME+↵

Send: SET OUT1 AUDIO VOLUME-↵ Receive: OUT1 AUDIO VOLUME-↵

Send: SET OUT1 AUDIO MUTE↵ Receive: OUT1 AUDIO MUTE//This command will toggle mute/unmue↵