4K (UHD) TOUCH SCREEN MONITORS

RS-232 Commands For Use With
RS-232 & Ethernet Connection

Models: xx-4KT

Sizes: 32", 55", 65"

Volanti 4k touch screen monitors have both RS-232 and Ethernet connection for remote commands using an RS-232 protocol command set.

The following guide provides information relating to use of these commands:
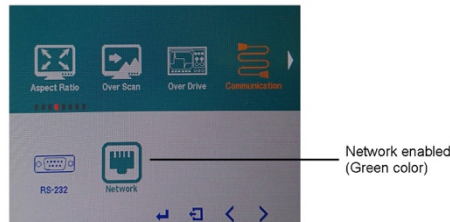
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Network connection

Volanti 4k touch screen monitors have a RJ-45 Ethernet port for control and monitoring over a network. This application note introduces the two user interface modes:

- Command line direct mode, works with remote applications.
- Browser based web server mode.

Before enter the above modes, make sure the Network option has been enabled in OSD menu settings. On OSD menu, go to "Advanced" -> "Communication" -> "Network" -> Press Down key to select and confirm. See below:

### Network Connection – Quick Guide

For experienced users the following quick guide to trying out the network connection and functions may be useful.

Command line direct mode: The RS-232 commands available are the same as documented in Appendix III and writing a control application is very similar to the RS-232 type except the commands must pass through the network. An alternative is to use an application written for RS-232 communication and use a virtual serial port program such as "TCP-COM" (http://www.taltech.com/products/tcpcom.html)

This software can create "Virtual" RS-232 serial ports that are actually connections to a TCP/IP port. This allows you to use existing Windows based serial communications software to send and receive data across TCP/IP network. (Note: The 3rd party program is not warranted nor is it the responsibility of Digital View.)

Below are the example of using TCP-COM and serial communication software (e.g. Access Port) to adjust the brightness value.

1. Open the "TCP-Com" program and set the following settings and then click activate.
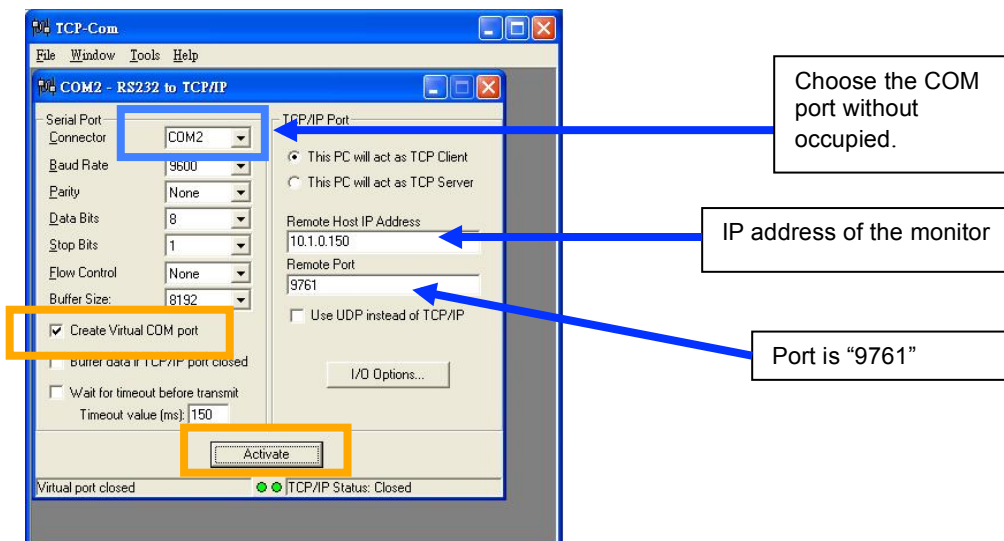
2. Open "AccessPort" serial communication software. Tick "Port Switch" and then go to "Tool" → "Configuration" to follow the settings stated below :
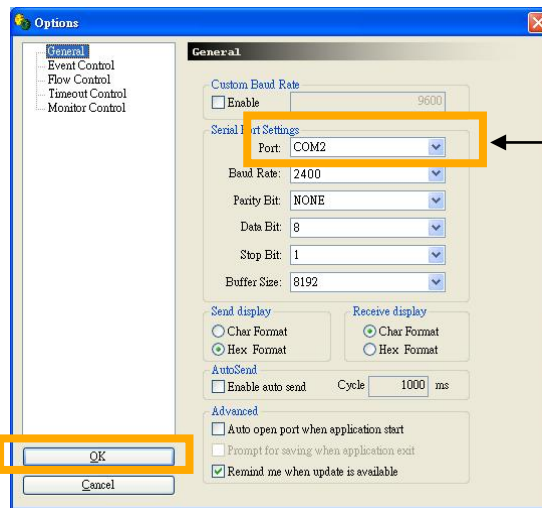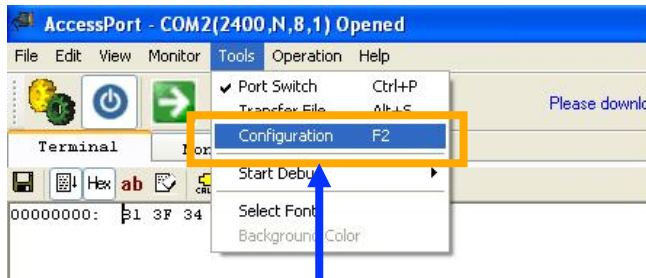
Choose COM port same as TCP-COM

3. Start to type RS-232 command under serial communication program (e.g AccessPort) to control the monitor.
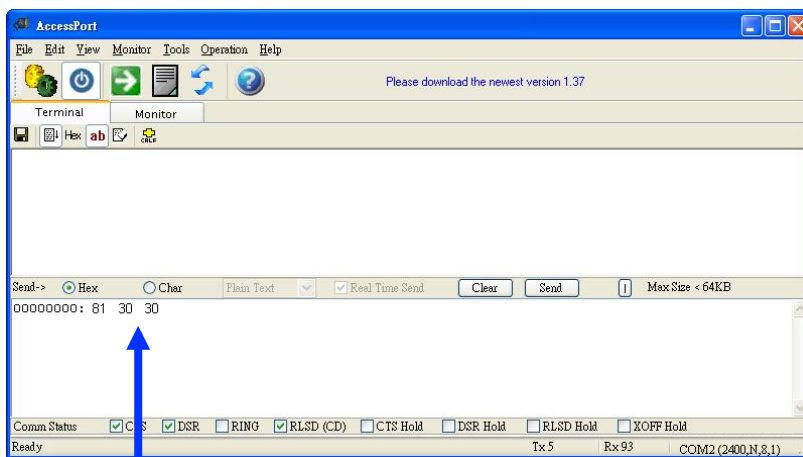
For example : Type "81 30 30" to adjust Brightness to min value. (0%)

Some command examples:

C8 30   [Soft power off]
C8 31   [Soft power on]
81 36 34   [Adjust brightness to max. value]
98 50 31   [Jump to Display Port input]

Specifications subject to change without notice

Browser based web server mode :
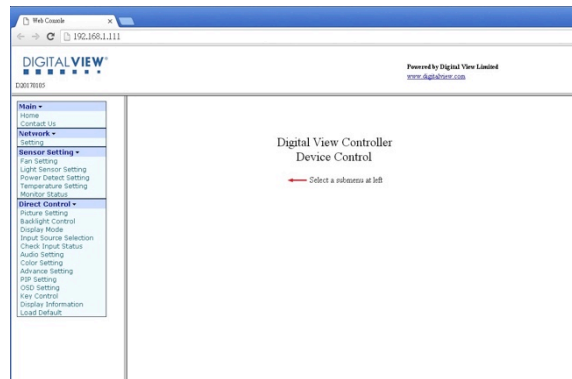
- Works with a normal network with DHCP, i.e. must use a router on LAN.

- Connect the 4k monitor to the LAN network and ensure power is on.

- Use the IP Locator utility available from the IP-60 web-page.
  http://www.digitalview.com/media/downloads/IPLocator.zip (Windows only)
- Double click on the IP address in the IP Locator window, it will open the monitor browser page in your default browser. Alternatively copy the IP address into your browser address line.

- Test the functions that come up on the browser. The function list on browser can be found in Appendix VII. (Some sensor functions might require alternative firmware version.)

- Summary of functions shown at the end of this guide.

For details, please refer to the separate application note.

RS-232 connection

RS-232 Serial control (Baud rate 2400), 8 bits, 1 stop bit and no parity

Physical connection :

Controller side
Connector interface : CN8
Mating connector : JST XHP-6

Computer side
Connector interface : Serial port
Mating connector : DB9 Female

⑥ ⑤ ④ ③ ② ①   Mating face of CN8

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨   Mating face of RS-232 DB9 Male

PIN#	Description
4	RS-232 Tx Data
5	Ground
6	RS-232 Rx Data
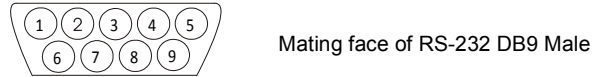
PIN#	Description
2	RS-232 Rx Data
3	RS-232 Tx Data
5	Ground

Remark :
(1) : RS-232 connection cable, 600mm P/N 426090200-3 can be ordered separately for connection.

Software connection :

The OSD function can be controlled through sending the RS-232 protocol.
The RS-232 program can be custom-made to fit for application or it can be used the serial control program, like Accessport, Telix or Serial Utility program developed by DigitalView. Please contact your local support for information.

Software Applications

Digital View free to download software: https://www.digitalview.com/accessories/software.html

This includes applications for RS-232 connection, Network connection, IP locator, Demo source code.

For custom software development please contact Volanti or an authorized reseller.

RS-232 command set

Commands to invoke switch mount control buttons

Function	Command	Description	Remark
Menu button	0xf7	Menu button pressed	Button equivalent
Select-down button	0xfa	Select-down button pressed	Button equivalent
Select-up button	0xfb	Select-up button pressed	Button equivalent
Right/+ button	0xfc	Right/+ button pressed	Button equivalent
Left/- button	0xfd	Left/- button pressed	Button equivalent

Audio & Image

Function	Command	Description	Acknowledge (if enabled)
Volume control - left+right channel	0x80, "a" | "A", nn | "+" | "-" | "r" | "R" | "?"	Set audio (L+R) volume = value/increment/decrement Reset Query	nn = 0x00~ 0x64 (0~100%) Default: 0x32 (50%)
Volume control - on/off (mute)	0x80, "m" | "M", "0" | "1" | "r" | "R" | "?"	Disable audio output. Enable audio output. Reset Query	"0" - audio off (mute). "1" - audio on. (Default)
Audio selection (in quad split PiP mode)	0x80, "P", "n" "?" "r" | "R"	Select Audio Output Query Reset	"n" = "0" - P1 (upper left picture) (Default) "1" - P2 (lower left picture) "2" - P3 (upper right picture) "3" - P4 (lower right picture) "A/a" – Analog source Note: P1~P4 audio source is available when video source is either DP or HDMI
Black level control (acts similar to brightness control but does not affect the backlight)	0x81, nn | "+" | "-" | "r" | "R" | "?" "m" "n"	Set level = value/increment/decrement Reset Query Current Source Maximum query Minimum query	nn = 0x00~ 0x64 (0~100%) Default: 0x32 (50%)
Contrast control	0x82, "a" | "A", nn | "+" | "-" | "r" | "R" | "?" "m" "n"	Set contrast = value/increment/decrement Reset Query Maximum query Minimum query	nn = 0x00~ 0x64 (0~100%) Default: 0x32 (50%)
Color saturation control	0x83, nn | "+" | "-" | "r" | "R" | "?" "m" "n"	Set color saturation = value/increment/decrement Reset Query Maximum query Minimum query	nn = 0x00~ 0x64 (0~100%) Default: 0x32 (50%)
Hue control	0x84, nn | "+" | "-" | "r" | "R" | "?" "m" "n"	Set tint = value/increment/decrement Reset Query Maximum query Minimum query	nn = 0x00~ 0x64 (0~100%) Default: 0x32 (50%)

GAMMA value select	0x9d, n | "r" | "R" "?"	Select GAMMA value = Value Reset Query	"n": "5" – 1.8, "7" – 2.0, "2" – 2.2, (Default) "A" – 2.4
Colour temperature select	0xb3, n | "r" | "R" | "?"	Select colour temperature = value Reset Query	"n" = "2" – 6500K. (Default) "4" – User "5" – 9300K "6" – 7500K "7" – 5800K "8" – sRGB "9" – 3200K "A" – 2600K (custom code)
Red level of User colour temperature	0xb4, nn | "+" | "-" | "r" | "R" | "?" "m" "n"	Set the level of the red channel for the user colour temp. = value/increment/decrement Reset Query Maximum query Minimum query	nn: 0x00~ 0xff (0~255) Default: 0x80
Green level of User colour temperature	0xb5, nn | "+" | "-" | "r" | "R" | "?" "m" "n"	Set the level of the green channel for the user colour temp. = value/increment/decrement Reset Query Maximum query Minimum query	nn: 0x00~ 0xff (0~255) Default: 0x80
Blue level of User colour temperature	0xb6, nn | "+" | "-" | "r" | "R" | "?" "m" "n"	Set the level of the blue channel for the user colour temp. = value/increment/decrement Reset Query Maximum query Minimum query	nn: 0x00~ 0xff (0~255) Default: 0x80
Color Effect	"0xee", "0x71", "0x30" "0"|"1"|"2"|"3"|"4" |"5" "?" "r" | "R"	Select Color Effect Value Query Reset	"0" = Standard (Default) "1" = Game "2" = Movie "3" = Photo "4" = Vivid "5" = User
Phase control (only for VGA port)	0x85, nn | "+" | "-" | "?"	Set phase = value/increment/decrement Query	nn = 0x00~ 0x64 (0~100%)
Image H position (only for VGA port)	0x86, nn | "+" | "-" | "r" | "R" | "?"	Set horizontal position = value/increment/decrement Reset Query	nn = 0x00~ 0x64 (0~100%)
Image V position (only for VGA port)	0x87, nnnn | "+" | "-" | "r" | "R" | "?"	Set vertical position = value/increment/decrement Reset Query	nn = 0x00~ 0x64 (0~100%) Default: 0x32 (50%)
Sharpness	0x8a, n | "+" | "-" | "r" | "R" | "?"	Set sharpness = value/increment/decrement Reset Query	nn = 0x00~ 0x64 (0~100%) Default: 0x32 (50%)

Specifications subject to change without notice

Clock control (only for VGA port)	0x8b, nn | "+" | "-" | "?"	Set VGA clock= Value/increment/decrement Query	nn = 0x00~ 0x64 (0~100%)
Aspect Ratio	0x8c, "0" | "1" | "9" | "A" | "F" "r" | "R" | "?"	Set video aspect ratio= Value Reset Query	"0" – 1:1 "1" – fill screen (Default) "9" – 4:3 "A" – 16:9 "F" – 5:4
Set display orientation	0x8e, n | "r" | "R" | "?"	Set display orientation = value Reset Query	"0" – normal (0 degree) (Default) "4" – rotated 90 "5" – rotated 180 "6" – rotated 270 Note: Rotation is only allowed in 1P mode
Input main video (P1) select	0x98, nn | "+" | "-" | "r" | "R" | "?"	Select P1 video input = value/next input/previous input Reset Query	"nn" = "0x41,0x31" A0: VGA "0x50, 0x31"D0: DP (Default) "0x48,0x31" D1: HDMI "0x48,0x32" D2: HDMI "0x48,0x33" D3: HDMI "0x45,0x31" D3: HD-SDI (for custom code only) "0x46,0x31" D4: DVI
Auto source seek	0x99, "0" | "1" | "r" | "R" | "?"	Set auto source seek = Disable/Enable Reset Query	Default: "1" (Enable)
Source Layout	0x9a, n | "r" | "R" | "?"	Select video source layout = Single, PIP , PBP, 4P Reset, Query	"n": "0"- 1P (Single) (Default) "1"- 2P PIP "2"- 2P PBP (Left Right) "3"- 2P PBP (Top Bottom) "4"- 4P

Picture in Picture related functions

PIP H position	0xa4, nn | "+" | "-" | "r" | "R" | "?"	Set PIP horizontal position= value/go right/go left Reset Query	PIP window horizontal position. Nn: 0x00(left)~0x64(right) Default: 0x64
PIP V position	0xa5, nn | "+" | "-" | "r" | "R" | "?"	Set PIP vertical position= value/go down/go up Reset Query	PIP window vertical position. Nn: 0x00(top)~0x64(bottom) Default: 0x64
PIP window size select	0xa6, nn | "r" | "R" | "?"	Select PIP window size = PIP window size value Reset Query	nn: 0x00(smallest)~0x0A (largest) Default: 0x0A
PIP window transparency Level	0xed, nn | "+" | "-" | "R" | "r" | "?"	Select PIP transparency level = value/increase/decrease Reset Query	nn: 0x00~0x0A (no ~ total transparency) Default: 0x00
PIP /P2 source select	0xa7, nn | "r" | "R" | "?"	Select PIP or P2 video source = Video source value Reset Query	P2 is: 2P PBP left right: right window 2P PBP top bottom: bottom window 4P: lower left window "nn" = "0x41,0x31" A0: VGA

			"0x50,0x31" D0: DP "0x48,0x31" D1: HDMI (Default) "0x48,0x32" D2: HDMI "0x48,0x33" D3: HDMI "0x45,0x31" D3: HD-SDI (for custom code only) "0x46,0x31" D4: DVI Please note that PIP or PBP mode should be enabled first before select video source.
P3 source select	0xa7, "c" nn | "r" | "R" | "?"	Select P3 video source = Video source value Reset Query	P3 is upper right window in 4P mode "nn" = "0x41,0x31" A0: VGA "0x50,0x31" D0: DP "0x48,0x31" D1: HDMI "0x48,0x32" D2: HDMI (Default) "0x48,0x33" D3: HDMI "0x45,0x31" D3: HD-SDI (for custom code only) "0x46,0x31" D4: DVI Please note that 4P PBP mode should be enabled first before select video source.
P4 source select	0xa7, "d" nn | "r" | "R" | "?"	Select P4 video source = Video source value Reset Query	P4 is lower right window in 4P mode "nn" = "0x41,0x31" A0: VGA "0x50,0x31" D0: DP "0x48,0x31" D1: HDMI "0x48,0x32" D2: HDMI "0x48,0x33" D3: HDMI (Default) "0x45,0x31" D3: HD-SDI (Default, for custom code only) "0x46,0x31" D4: DVI Please note that 4P PBP mode should be enabled first before select video source.
Swap PIP / 2P PBP video source	0xe3	Swap Main and PIP Source (PIP mode), left & right source (PBP LR) or Top & Bottom (PBP TB)	"0" – fail. "1" – successful.

Backlight related functions

Backlight control	0xe0, nn | "+" | "-" | "R" | "r" | "?"	Set Backlight level = value/increment/decrement Reset Query	nn = 0x00~ 0x64 (0~100%) Default: 0x64 (100%)
Backlight On/Off	0xe1, "0" | "1" | "R" | "r" "?"	Backlight Off / Backlight On Reset Query	"0" – Backlight Off "1" – Backlight On. (Default)
Backlight DA/PWM	0xe5 "0" | "1" | "R" | "r" "?"	Set backlight control method: PWM / DA Reset Query	"0" – PWM (Default) "1" – D/A

Specifications subject to change without notice

Backlight PWM frequency	0xe6, nnn | "+" | "-" | "R" | "r" | "?"	Set backlight PWM frequency = value/increase 20Hz/decrease 20Hz Reset Query	Value 100Hz : "0","6","4" 120Hz : "0","7","8" 140Hz : "0","8","C" 160Hz : "0","A","0" (Default) 180Hz : "0","B","4"' 200Hz : "0","C","8" 220Hz : "0","D","C" 240Hz : "0","F","0" 260Hz : "1","0","4" 280Hz : "1","1","8" 300Hz : "1","2","C" 320Hz : "1","4","0" 340Hz : "1","5","4" 360Hz : "1","6","8" 380Hz : "1","7","C" 400Hz : "1","9","0" 420Hz : "1","A","4" 440Hz : "1","B","8"
Backlight Invert	0xe7 "0" | "1" | "R" | "r" "?"	Set invert backlight level : Off / On Reset Query	"0" – Off (Default) "1" – On
Minimum backlight level	0xee, "0x5C" nn | "+" | "-" | "R" | "r" | "?"	Set minimum backlight level= value/increment/decrement Reset Query	Minimum Backlight value. nn: 0x00 ~ 0x32 (0~50%) Default: 5%

On Screen Display (OSD)

Rotate OSD	0x8f, "0" | "1" | "3" | "?"	 Normal OSD rotate rotated 90 rotated 270 Query	"0" – normal OSD. (Default) "1" – rotated 90 OSD. "3" – rotated 270 OSD.
OSD H position	0x90, nn | "+" | "-" | "r" | "R" | "?"	Set OSD horizontal position = value/increment/decrement Reset Query	nn = 0x00~ 0x64 (left ~ right) Default: 0x32 (middle)
OSD V position	0x91, nn | "+" | "-" | "r" | "R" | "?"	Set OSD vertical position = value/increment/decrement Reset Query	nn = 0x00~ 0x64 (top ~ bottom) Default: 0x32 (middle)
OSD transparency	0x92, nn | "+" | "-" | "r" | "R" | "?"	Set OSD transparency = value/increment/decrement Reset Query	nn = 0x00~ 0x64 (0~100%) Default: 0x00 (No transparency)
OSD menu timeout	0x93, nn | "+" | "-" | "r" | "R" | "?"	Select menu timeout = value/increment/decrement Reset Query	OSD menu timeout value. nn = 0x0A – Always on nn = 0x0B - 0x3C (11~60sec) Default: 0x0B (11sec)
OSD status enquiry	0xbb	Status of OSD	"0" – OSD turned off "1" – OSD turned on
OSD turn off	0xbd	Turn off the OSD.	"0" – fail. "1" – successful.
OSD switch mount	"0xee", "0x62"		"0"- Unlock (Default)

Lock	"0" |"1" "?"	Unlock / Lock Query	"1"- Lock, no response to OSD switch mount keys

Hotkeys: User selectable shortcuts

Hot key 1 (plus and minus keys)	0xa0, "1", n | "r" | "R" | "?"	Set Hot key 1= Value Reset Query	"n": "1" – volume "2" – brightness "3" – contrast "4" – color saturation "5" – input source (P1 source) "9" – PIP size "B" – No hot key function (Default) "D" – PIP Swap "E" – Aspect ratio "G" – Hue "H" – Backlight level "I" – VGA Auto picture adjust "L" – Sharpness "M" – Display mode (select 1P, 2P PIP, 2P PBP or 4P)
Hot key 2 (up and down keys)	0xa0, "2", n | "r" | "R" | "?"	Set Hot key 2= Value Reset Query	"n": "1" – volume "2" – brightness "3" – contrast "4" – color saturation "5" – input source (P1 source) "9" – PIP size "B" – No hot key function (Default) "D" – PIP Swap "E" – Aspect ratio "G" – Hue "H" – Backlight level "I" – VGA Auto picture adjust "L" – Sharpness "M" – Display mode (select 1P, 2P PIP, 2P PBP or 4P)

Other control

Function	Command	Description	Acknowledge (if enabled)
Video horizontal resolution enquiry	0xb7	Horizontal resolution (in pixels) in 3 to 4 digit hex number	
Video vertical resolution enquiry	0xb8	Vertical resolution (in lines) in 3 digit hex number	
Video horizontal sync frequency	0xb9	Horizontal sync frequency (in units of 100Hz) in 3 digit hex number	
Video vertical sync frequency	0xba	Vertical sync frequency (in units of Hz) in 3 digit hex number and 1 char	"nnnc" = vertical frequency nnn = 3 digit hex c= "i" (interlace) or "p" (progressive)
Display video information box	0xbc, "?" | "0" | "1"	Query No video info box shown After switching to a new video source, the video info box is displayed for 5 seconds.	"0" – disabled. "1" – enabled. (Default)
Runtime counter	0xa1, nnnnn |	Set runtime counter value = nnnnn (* 0.5 hour)	Runtime = nnnnn. Max. input = 0x1fffe (0x1fffe * 0.5 hour

	"r" | "R" | "?"	Reset to zero Query	= 65535 hours) Runtime counter counts when backlight is on
Auto power off	0x9f, "0" | "1" | "r" | "R" | "?"	Set auto power save option = Disable/Enable Reset Query	"n": "0" – Disable auto power off "1" – Enable auto power off (Default)
Default Power	"0xee", "0x6B", "0x50" "0"| "1"| "?"	Default power state after supplying power to controller Off On Query	 "0" - default power off "1" - default power on
Select RS-232 acknowledge	0xc1, "0" | "1"	Disable/enable command acknowledge.	"0" – acknowledge disabled. "1" – acknowledge enabled. (Default)
VGA auto adjust	0xc3	Start VGA auto adjust	"0" – fail. "1" – successful.
Command availability	0xc4, nn / nnnn	Check whether a command is available.	"0" – not available. "1" – available. e.g "0x81" command send "0xc4 0x38 0x31" feedback "0xc4 0x38 0x31 0x31" e.g "0xee 0x5c" command send "0xc4 0x45 0x45 0x35 0x43" feedback "0xc4 0x45 0x45 0x35 0x43 0x31"
VGA auto color gain	0xc5	Start VGA auto-calibration of gain of the RGB amplifier.	"0" – fail. "1" – successful.
Power On/Off	0xc8, "0" | "1" | "?"	Soft power on/off off/on query	"0" – soft power off. "1" – soft power on.
Query video input status	0xc9	Query the status of the displaying video windows source	Input status nn nn: "0","0" : no video source / disabled "A","1" A0: VGA "F","1" D4: DVI "H,"1" D1: HDMI "H,"2" D2: HDMI "H,"3" D3: HDMI "E,"1" D3: HD-SDI (for custom code) "P,"1" D0: DP Feedback 4 video windows status in form of: nn nn, nn nn, nn nn, nn nn (P1, P2, P3, P4)
Query BIOS version	0xcb, "0"	Read BIOS version	BIOS version "VV.YY.ZZ" VV = Vx or Ex, (x is version digit) V = Release version E = Engineering Sample YY= Version Number ZZ= Customer Number
Query PCBA number	0xcb, "1"	Read PCBA number	"nnnnn" = PCBA number SVX-4096 = "41755"

Query Revision Number	0xcb, "3"	Read Revision Number	"nn" = Revision number AA in firmware version no. "VV.YY.ZZ.AA"
Reset parameters	0xce	Reset all parameters to default value	"1" – successful.
Reset all parameters	0xcf	Reset all parameters, including user color temperature setting, for all video modes to default value	"1" - successful.

Hex / ASCII table

n = 1-byte ascii-coded hex number, e.g., parameter value of 0x1 is represented by "1" (0x31).
mn or nn = 2-byte ascii-coded hex number, e.g., parameter value of 0x1e is represented by "1", "e" | "E" (0x31, 0x6e|0x4e).

The RS-232 command strings sent in one time can support up to 380 bytes via CN8 port
The RS-232 command string sent in one time can support up to 50 bytes via CN1 or J1 port.

n = 1-byte ascii-coded hex number, e.g., parameter value of 0x1 is represented by "1" (0x31).
mn or nn = 2-byte ascii-coded hex number, e.g., parameter value of 0x1e is represented by "1", "e" | "E" (0x31, 0x6e|0x4e).

Please refer to the ASCII to Hex convert table below.

Hex to ASCII conversion table

Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII
0x30	0	0x41	A	0x61	a	0x2B	+
0x31	1	0x42	B	0x62	b	0x2D	-
0x32	2	0x43	C	0x63	c	0x3F	?
0x33	3	0x44	D	0x64	d		
0x34	4	0x45	E	0x65	e		
0x35	5	0x46	F	0x66	f		
0x36	6	0x47	G	0x67	g		
0x37	7	0x48	H	0x68	h		
0x38	8	0x49	I	0x69	i		
0x39	9	0x4A	J	0x6A	j		
		0x4B	K	0x6B	k		
		0x4C	L	0x6C	l		
		0x4D	M	0x6D	m		
		0x4E	N	0x6E	n		
		0x4F	O	0x6F	o		
		0x50	P	0x70	p		
		0x51	Q	0x71	q		
		0x52	R	0x72	r		
		0x53	S	0x73	s		
		0x54	T	0x74	t		
		0x55	U	0x75	u		
		0x56	V	0x76	v		
		0x57	W	0x77	w		
		0x58	X	0x78	x		
		0x59	Y	0x79	y		
		0x5A	Z	0x7A	z		

Functions list on browser page

The SVX-4096 also includes an Ethernet connection with Browser mode support, the following is a summary of functions list on IP-60's browser page.

Main			
Network			
	Network Configure		
		Firmware Version	
		MAC Address	
		Host Name	
		DHCP	On /Off
		IP Address	
		Subnet Mask Address	
		Default Gateway Address	
		Primary DNS Address	
Sensor Setting			
	Fan Setting		
		Fan 1	On / Off
		Fan 2	On /Off
		Fan 1 min rpm	
		Fan 2 min rpm	
	Light Sensor Setting		
		Light Sensor	On / Off
		Min. Value	
	Power Detect Setting		
		Power Source 1 (PS1)	On / Off
		Power Source 2 (PS2)	On / Off
		PS1 Value	
		PS2 Value	
	Temperature Setting		
		Internal Temp. Sensor	On /Off
		External Temp. Sensor	On /Off
		Int. Temp. Warning Value	Value
		Ext. Temp. Warning Value	Value
	Monitor Status		
		Fans Monitor (Fan 1)	
		Fans Monitor (Fan 2)	
		Temperture Monitor (Int. Temp.)	
		Temperture Monitor (Ext. Temp.)	
		Power Monitor (PS 1)	
		Power Monitor (PS 2)	
		Light Monitor (Light1)	

Direct Control			
	Picture Setting		
		Brightness	Value
		Contrast	Value
		Saturation	Value
		Sharpness	Value
		Hue	Value
	Backlight Control		
		Soft Power	On / Off
		Backlight Status	On / Off
		Backlight Control	Value
		Backlight PWM Frequency	PWM (100Hz-440Hz)
	Display Mode		
		1P / 2P_LR / 2P_TB / 2P_PIP / 4P	
	Input Source Selection	P1 Input Source	Display Port/HDMI 1/HDMI 2/HDMI 3/DVI/VGA
		P2 Input Source	Display Port/HDMI 1/HDMI 2/HDMI 3/DVI/VGA
		P3 Input Source	Display Port/HDMI 1/HDMI 2/HDMI 3/DVI/VGA
		P4 Input Source	Display Port/HDMI 1/HDMI 2/HDMI 3/DVI/VGA
	Check Input Status		
		Check Main & PIP Source	Invalid/ARGB/HD/SD Component/DVI/HDMI/Display Port
	Audio Setting		
		Mute	On / Off
		Volume	Value
		Source Selection	P1/P2/P3/P4/Analog
	Color Setting		
		Color Temperature	3200K/5800K/6500K/7500K/9300K/sRGB/User
		User - Red Level Color Temp.	Value
		User - Green Level Color Temp.	Value
		User - Blue Level Color Temp.	Value
		Color Effect	Standard/Game/Movie/Photo/Vivid/User
		Gamma	Off/1.8/2.0/2.2/2.4
	Advanced Setting		
		Aspect Ratio	Full/16:9/4:3/5:4/1:1
		Display Orientation	Normal/Anti-Clockwise 90/Rotate 180/Anti-Clockwise 270

Specifications subject to change without notice

	PIP Setting		
		Swap	
		PIP Size	(0 - 10)
		PIP Horizontal Position	Value
		PIP Vertical Position	Value
	OSD Setting		
		OSD Status	On / Off
		OSD Turn	On / Off
		OSD Horizontal Position	Value
		OSD Vertical Position	Value
		OSD Menu Timeout	Value
	Key Control		
		Menu/Down/Up/Left(-)/Right(+)	
	Display Information		
		BIOS Version	
		Horizontal Resolution	
		Vertical Resolution	
		Horizontal Frequency	
		Vertical Frequency	
	Load Default		
		Reset All Parameters	Reset all parameters to default value
		Reset Parameters	Reset all parameters for all video mode to defualt value

![Volanti Displays logo]

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