Technical Reference

020-102396-02

FHD492-XV and FHD552-XV

Serial Commands

CHRISTIE®

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Communicating with the FHD492-XV or the FHD552-XV

Understand the procedures for communication with a display panel using an RS232 or a LAN connection.

To communicate with a display panel over an RS232 or LAN connection, you must have the Hercules SETUP utility version 3.2.8 or higher installed on your control computer. For more information, visit *http://www.hw-group.com/index_en.html* and search for `Hercules SETUP utility`.

Defining common terminology

Understand the terms used to describe actions that are documented in this guide.

- **Get**—A request for information that is sent from a control computer to a display panel
- **Report**—A reply from a display panel to the control computer in response to a Get request
- **Set**—A request to that is sent from a control computer to change or update a setting on a display panel
- **PBS**—Professional Business Solutions
- **RC**—Remote Control
- **ACK**—Acknowledge
- **NACK**—Not Acknowledge
- **NAV**—Not Available
- **ID**—Identification
- **0xXX**—Hexadecimal Notation

Connection and use

Once you connect your computer to the RS232C IN port on a display panel, you can send control commands to it.

When you launch the Hercules SETUP utility, ensure that you enable **HEX**, select **Hexadecimal** as a special character, and select **HEX** as a send format. For more information, see the Hercules SETUP utility help on the HW-Group website.

Before you enter a new command, wait until your previous command is acknowledged. When a command is acknowledged, you receive a message that says **ACK**. If a response is not received within 500 milliseconds of a command, you might need to retry the command. If you enter an unsupported command, you receive a message that says **NAV**. If an error occurs during transmission of a command, you receive a message that says **NACK**.

When you enter a `Get` command, the display responds with the requested information. When you enter a `Set` command, the display performs the requested operation.

Sending commands using a LAN connection

Before you begin, verify that the network switch between the computer and display panel is active.

1. To obtain the IP address of the display panel, on the remote control, press **Home** then select **Network Settings** > **View Network Settings**.
2. Connect to the TCP client using the *Hercules SETUP utility* (on page 5).

   When you launch the Hercules SETUP utility, ensure that you enable **HEX**, select **Hexadecimal** as a special character, and select **HEX** as a send format. For more information, see the Hercules SETUP utility help on the HW-Group website.
3. Enter the IP address, and select port 5000 in the TCP client.

   The display panel is now connected.
4. Enter a command.

Understanding the command format

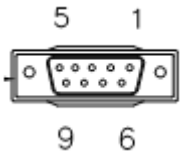
Learn the format of the commands that are sent in the RS232 packet.

Physical specifications

1. Baud rate: 9600
2. Data bits: 8
3. Parity: None
4. Stop bit: 1
5. Flow control: None

Pin assignments

The following image represents the order of the pin assignments for the DB9 female connector.



Pin number	Signal	Comments
1, 4, 6, 7, 8, 9	NC	
2	RXD	Input to the LCD display panel
3	TXD	Output from the LCD display panel

Pin number	Signal	Comments
5, Frame	GND	

Packet format for Get or Set commands

1. Header
2. Monitor ID
3. Category
4. Code0
5. Code1
6. Length
7. Data Control
8. DATA[0]
9. DATA[…]
10. DATA[N]
11. Checksum

Details

Field name	Description
Header	Header = 0xA6 (this is a fixed value for commands sent from the computer to the display panel)
Monitor ID	This is the unique identifier of a display panel in an array. This value must correspond to the Monitor ID value found in the General Settings menu on the display panel. • Monitor ID Range = 1~255 • Value of 0 = broadcast setting
Category	Category = 0x00 (this is a fixed value)
Code0 (Page)	Code0 = 0x00 (this is a fixed value)
Code1 (Function)	Code1 = 0x00 (this is a fixed value)
Length	This is the length of the message plus the checksum code. Calculate the length from the Data Control byte to the Checksum byte. The length of the message can change depending on the amount of Data bytes that are included.
Data Control	Data Control = 0x01 (this is a fixed value)
DATA[0]	This is the command code. In this field, enter the unique code that corresponds to the command you want to execute. For a complete list of command codes and their descriptions, see the *Command code summary* (on page 9).
DATA[1]~DATA[N]	These are data fields. Depending on the command, data fields may be left empty.
Checksum	• **Checksum range:** 0 to 255 (0xFF)

Field name	Description
	• **Checksum algorithm:** The EXCLUSIVE-OR (XOR) of all bytes in the message from the Header byte to the last Data byte. The Checksum itself is not included in this calculation. Christie recommends using a checksum calculator to perform this calculation. • **Example:** [Header] XOR [Monitor ID] XOR … DATA[0] … XOR DATA[N] = Checksum

Packet format for Report commands received from the display panel

1. Header
2. Monitor ID
3. Category
4. Page
5. Length
6. Data Control
7. DATA[0]
8. DATA[…]
9. DATA[N]
10. Checksum

Field name	Description
Header	Header = 0x21 (this is a fixed value for information sent from the display panel to the computer)
Monitor ID	Monitor ID Range = 1 ~ 255
Category	Category = 0x00 (this is a fixed value)
Page	Page = 0x00 (this is a fixed value)
Length	This is the length of the message plus the Checksum code. Calculate the length from the Data Control byte to the Checksum byte. The length of the message can change depending on the amount of Data bytes that are included.
Data Control	Data Control = 0x01 (this is a fixed value)
DATA[0]	This is a copy of the received command code.
DATA[1]~DATA[N]	This is returned data that is associated with the command code.
Checksum	The XOR of all bytes from the Header to the last Data byte in the reply/report packet. The Checksum itself is not included in this calculation.

Examples

ACK reply (Monitor ID 01). This is the result if the command execution is successful. Over a LAN connection, the hexadecimal value is received.

Header	Monitor ID	Category	Page	Length	Data Control	DATA[0]	DATA[1]	Checksum
0x21	0x01	0x00	0x00	0x04	0x01	0x00	0x00	0x25

NACK reply (Monitor ID 01). This is the result if the command code (Data[0]) is incorrect. Over a LAN connection, the hexadecimal value is received.

Header	Monitor ID	Category	Page	Length	Data Control	DATA[0]	DATA[1]	Checksum
0x21	0x01	0x00	0x00	0x04	0x01	0x00	0x03	0x26

NAV reply (Monitor ID 01). This is the result if there is a checksum error or an improper variable is used in the command. Over a LAN connection, the hexadecimal value is received.

Header	Monitor ID	Category	Page	Length	Data Control	DATA[0]	DATA[1]	Checksum
0x21	0x01	0x00	0x00	0x04	0x01	0x00	0x04	0x21

Command code summary

The tables below summarize the Get and Set command codes for the DATA[0] byte.

Get commands

Command name	Command code (DATA[0])	Command description
Communication control	0x00	
Platform and version labels	0xA2	This command requests the label version
Power state	0x19	This command requests the current power state of a display panel
User input control	0x1D	This command obtains the lock/ unlock state of a display panel
Power at cold start	0xA4	This command requests the current cold start power state
Current source	0xAD	This command sends a request to a display panel to report the current input source that is in use
Auto signal detecting	0xAF	This command requests that a display panel report its Auto Signal Detecting status
Video parameters	0x33	This command requests that a display panel report its current video parameters
Color temperature	0x35	This command requests that a display panel report its current color temperature

Command name	Command code (DATA[0])	Command description
Color temperature parameters	0x37	This command requests that a display panel report its current color temperature parameters
Picture format	0x3B	This command requests that a display panel report its current picture format
Volume	0x45	This command requests that a display panel report its current volume level
Audio parameters	0x43	This command requests that a display panel report its current audio parameters
Miscellaneous	0x0F	This command requests that a display panel report miscellaneous parameters such as signal status and operating hours
Serial code	0x15	This command requests that a dispay panel report its serial code number (a 14-digit production code)
Temperature	0x2F	This command requests that a display panel report the value of its temperature sensors within a range of 3°C
Tiling	0x23	This command requests that a display panel report its tiling status
Backlight level	0x31	This command requests that a display panel report its current backlight level

Set commands

Command name	Command code (DATA[0])	Command description
Communication control	0x00	
Power state	0x18	Sends a command to change the power state of a display panel
User input control	0x1C	This command sets the lock/unlock state of a display panel
Power at cold start	0xA3	This command sets the cold start power state of a display panel
Input source	0xAC	This command sends a request to a display panel to set the current input source
Auto signal detecting	0xAE	This command sends a request to change the Auto Signal Detecting setting on a display panel

Command name	Command code (DATA[0])	Command description
Video parameters	0x32	This command sends a request to change the current video parameters on a display panel
Color temperature	0x34	This command sends a request to change the current color temperature on a display panel
Color temperature parameters	0x36	This command sends a request to change the current color parameters on a display panel
Picture format	0x3A	This command sends a request to set a specified picture format on a display panel
Volume	0x44	This command sends a request to change the volume setting on a display panel
Volume limits	0xB8	This command sends a request to set the volume limit on a display panel. The Minimum, Switch On, and Maximum values must conform to the following rule: • Min <= Switch On <= Max
Audio parameters	0x42	This command sends a request to change the audio parameters on a display panel
Auto adjust	0x70	This command requests that a display panel make an automatic adjustment on the VGA input source
Tiling	0x22	This command requests that a display panel report its tiling setting
Backlight level	0x30	This command sends a request to change the backlight level of a display panel
Factory reset	0xFE	This command requests that a display panel perform a factory reset
IR remote control	0xFD	This command requests that the IR remote control send the IR key to a display panel

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Constructing the command message

The following is an example of the Get, Report, and Set commands as they relate to the power state of a display panel.

Power state: Get command

The command sends a request to a display panel to report its current power state.

Command

Type	Byte	Value
GET	DATA[0]	0x19

Example

Header	Monitor ID	Category	Code0	Code1	Length	Data Control	DATA[0]	Checksum
0xA6	0x01	0x00	0x00	0x00	0x03	0x01	0x19	0xBC

Power state: Report command

The command reports the power state of a display panel. A Report command is a response from the display panel after a Get command is sent.

Commands

Type	Bytes	Values
REPORT	DATA[0]	0x19
	DATA[1]	0x01 = Power Off
		0x02 = Power On

Examples

Report the power state (power is off):

Header	Monitor ID	Category	Page	Length	Control	DATA[0]	DATA[1]	Checksum
0x21	0x01	0x00	0x00	0x04	0x01	0x19	0x01	0x

Report the power state (power is on):

Header	Monitor ID	Category	Page	Length	Control	DATA[0]	DATA[1]	Checksum
0x21	0x01	0x00	0x00	0x04	0x01	0x19	0x02	0x3E

Power state: Set command

The command changes the power state of a display panel.

Commands

Type	Bytes	Values
SET	DATA[0]	0x18
	DATA[1]	0x01 = Power Off
		0x02 = On

Examples

Turn off a display panel:

Header	Monitor ID	Category	Code 0	Code 1	Length	Data Control	Data[0]	Data[1]	Checksum
0xA6	0x01	0x00	0x00	0x00	0x04	0x01	0x18	0x01	0xBB

Turn on a display panel:

Header	Monitor ID	Category	Code 0	Code 1	Length	Data Control	Data[0]	Data[1]	Checksum
0xA6	0x01	0x00	0x00	0x00	0x04	0x01	0x18	0x02	0xB8

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Sending general messages

Learn the commands for sending a general message.

Sending platform and version label commands

Platform and version label commands send the model name of the platform and display software version information to the host controller.

Commands

Type	Bytes	Values
GET	DATA[0]	0xA2
	DATA[1]	0x00 = Get the firmware version
		0x01 = Get the model name of the platform
REPORT	DATA[0]	0xA2
	DATA[1] to DATA[N]	Returns a maximum of 36 (0x24) characters. The actual size determines the value of the message size byte.

Sending user input control commands

Learn the commands that are used to lock or unlock the remote control and the corresponding local keyboard functionality.

Commands

Type	Bytes	Values
GET	DATA[0]	0x1D
REPORT	DATA[0]	0x1D
	DATA[1]	0x00 = lock the remote control and local keyboard function

Type	Bytes	Values
		0x01 = unlock the remote control and local keyboard function
SET	DATA[0]	0x1C
	DATA[1]	0x00 = lock the remote control and local keyboard function
		0x01 = unlock the remote control and local keyboard function

Sending cold start power state commands

Understand the commands used to set and update the cold start power state.

The value is stored and applied the next time a display panel is started from a cold power state.

- **Power Off**—The display panel is automatically switched to Power Off mode when the main power is turned on or resumed after a power interruption.
- **Forced On**—The display panel is automatically switched to On mode when the main power is turned on or resumed after a power interruption.
- **Last Status**—The display panel is automatically switched to its most recent state when the main power is turned on or resumed after a power interruption.

Commands

Type	Bytes	Values
GET	DATA[0]	0xA4
REPORT	DATA[0]	0xA4
	DATA[1]	0x00 = Power Off
		0x01 = Forced On
		0x02 = Last Status
SET	DATA[0]	0xA3
	DATA[1]	0x00 = Power Off
		0x01 = Forced On
		0x02 = Last Status

Sending input source messages

Learn the commands for sending an input source message.

Sending input source commands

Learn the commands that are used to change the input source.

Commands

Type	Bytes	Values
GET	DATA[0]	0xAD
REPORT	DATA[0]	0xAD
	DATA[1]	0x00 = Reserved for smartcard
		0x01 = Reserved for smartcard
		0x02 = Reserved for smartcard
		0x03 = Reserved for smartcard
		0xFD = Input source (normal state)
		0xFE = Reserved for smartcard
	DATA[2]	For input source types 0x00, 0x01, 0x02, 0x03: • 0x01 to 0x63 = channel number (for smartcard only)
		For input source type 0xFD: • 0x01 = VIDEO • 0x02 = S-VIDEO • 0x06 = COMPONENT • 0x08 = VGA • 0x09 = HDMI2 • 0x0A = HDMI • 0x0B = DVI-D

Type	Bytes	Values
		• 0x0D = Display Port • 0x0E = Card OPS • 0x0F = USB • 0x0FF = Unknown
SET	DATA[0]	0xAC
	DATA[1]	0x00 = VIDEO
		0x01 = S-VIDEO
		0x03 = COMPONENT
		0x05 = VGA
		0x05 = HDMI2
		0x07 = Card DVI-D
		0x07 = Display Port
		0x08 = Card OPS
		0x08 = USB
		0x09 = HDMI
		0x09 = DVI-D
	DATA[2]	0x00 = VIDEO
		0x01 = S-VIDEO
		0x00 = COMPONENT
		0x00 = VGA
		0x01 = HDMI2
		0x00 = Card DVI-D
		0x01 = Display Port
		0x00 = Card OPS
		0x01 = USB
		0x00 = HDMI
		0x00 = DVI-D
	DATA[4]	Unit: 100ms

Example: Switch to DVI-D with no delay

Field	Value
Header	0xA6
Monitor ID	0x01
Category	0x00

Field	Value
Code 0	0x00
Code 1	0x00
Length	0x05
Data Control	0x01
Data[0]	0xAC
Data[1]	0x09
Data[2]	0x01
Checksum	0x07

Example: Swith to DVI-D with a 100ms delay

Field	Value
Header	0xA6
Monitor ID	0x01
Category	0x00
Code 0	0x00
Code 1	0x00
Length	0x07
Data Control	0x01
Data[0]	0xAC
Data[1]	0x09
Data[2]	0x01
Data[3]	0x00
Data[4]	0x0A
Checksum	0x0F

Sending Auto Signal Detecting status commands

Learn how to obtain and change the Auto Signal Detecting status.

Commands

Type	Bytes	Values
GET	DATA[0]	0xAF
REPORT	DATA[0]	0xAF
	DATA[1]	0x00 = Off
		0x01 = On

Type	Bytes	Values
SET	DATA[0]	0xAE
	DATA[1]	0x00 = Off
		0x01 = On

Sending video messages

Understand the commands for obtaining and setting video parameters and for controlling the picture format.

Sending video parameter commands

Learn the commands to obtain or set video parameters.

Commands

Type	Bytes	Values
GET	DATA[0]	0x33
REPORT	DATA[0]	0x33
	DATA[1]	Brightness = 0 to 100 of the user-selectable range
	DATA[2]	Color = 0 to 100 of the user-selectable range
	DATA[3]	Contrast = 0 to 100 of the user-selectable range
	DATA[4]	Sharpness = 0 to 20 (0x0 ~ 0x14) of the user-selectable range
	DATA[5]	Tint (hue) = -50 to 50 (0x0 ~ 0x64) of the user-selectable range
SET	DATA[0]	0x32
	DATA[1]	Brightness = 0 to 100 of the user-selectable range
	DATA[2]	Color = 0 to 100 of the user-selectable range
	DATA[3]	Contrast = 0 to 100 of the user-selectable range
	DATA[4]	Sharpness = 0 to 20 (0x0 ~ 0x14) of the user-selectable range

Type	Bytes	Values
	DATA[5]	Tint (hue) = -50 to 50 (0x0 ~ 0x64) of the user-selectable range

Sending picture format commands

Learn how to control the display screen format.

If the display panel receives a Set command for a picture format that does not work with its display aspect ratio, it sends a **NAV** response. If the display panel receives a Set command for a picture format that it cannot execute, the display ignores the command.

Commands

Type	Bytes	Values
GET	DATA[0]	0x3B
REPORT	DATA[0]	0x3B
	DATA[1]	0x00 = 4:3
		0x01 = Custom
		0x02 = Unscaled
		0x03 = Widescreen
		0x04 = Movie expand 16:9
		0x05 = Auto
SET	DATA[0]	0x3A
	DATA[1]	0x00 = 4:3
		0x01 = Custom
		0x02 = Unscaled
		0x03 = Widescreen
		0x04 = Movie expand 16:9
		0x05 = Auto

Sending color temperature commands

Learn the commands for getting or setting the color temperature.

Commands

Type	Bytes	Values
GET	DATA[0]	0x35
REPORT	DATA[0]	0x35
	DATA[1]	0x00 = Custom

Type	Bytes	Values
		0x03 = Cool (10000K)
		0x04 = Normal (9300K)
		0x06 = Warm (6500K)
SET	DATA[0]	0x34
	DATA[1]	0x00 = Custom
		0x03 = Cool (10000K)
		0x04 = Normal (9300K)
		0x06 = Warm (6500K)

Sending color temperature parameters commands

Learn the commands for getting and setting the color parameters for a specific color temperature.

Commands

Type	Bytes	Values
GET	DATA[0]	0x37
REPORT	DATA[0]	0x37
	DATA[1]	Red Color Gain Value = 0 to 255 of the user-selectable range
	DATA[2]	Green Color Gain Value = 0 to 255 of the user-selectable range
	DATA[3]	Blue Color Gain Value = 0 to 255 of the user-selectable range
SET	DATA[0]	0x36
	DATA[1]	Red Color Gain Value = 0 to 255 of the user-selectable range
	DATA[2]	Green Color Gain Value = 0 to 255 of the user-selectable range
	DATA[3]	Blue Color Gain Value = 0 to 255 of the user-selectable range

Sending audio messages

Understand the commands for volume controls and for obtaining and setting volume parameters.

Sending volume commands

Learn the commands for setting or obtaining the volume on a display panel.

The interface for software settings must be configured so that when you enter a command it also modifies the variables that represent the current parameters.

To mute a display panel, enter the command `Volume = 0`. This command does not overwrite the system mute status of the display.

Commands

Type	Bytes	Values
GET	DATA[0]	0x45
REPORT	DATA[0]	0x45
	DATA[1]	Volume = 0 to 60 of the user-selectable range
SET	DATA[0]	0x44
	DATA[1]	Volume = 0 to 60 of the user-selectable range

Sending volume limit setting commands

Learn the commands for setting the minimum and maximum volume limits.

Commands

Type	Bytes	Values
SET	DATA[0]	0xB8 • Note that the three values must conform to the following rule: • Min <= Switch On <= Max

Type	Bytes	Values
	DATA[1]	Minimum Volume = 0 to 60 of the user-selectable range
	DATA[2]	Maximum Volume = 0 to 60 of the user-selectable range
	DATA[3]	Switch On Volume = 0 to 60 of the user-selectable range

Sending audio parameters commands

Learn the commands for setting and obtaining the audio parameters of a display panel.

When entering a Set command, the software settings interface must be configured so that when you enter a command it also modifies the variables that represent the current parameters.

Commands

Type	Bytes	Values
GET	DATA[0]	0x43
REPORT	DATA[0]	0x43
	DATA[1]	Treble = -8 to 8 (0x2A ~ 0x3A) of the user-selectable range
	DATA[2]	Bass = -8 to 8 (0x2A ~ 0x3A) of the user-selectable range
SET	DATA[0]	0x42
	DATA[1]	Treble = -8 to 8 (0x2A ~0x3A) of the user-selectable range
	DATA[2]	Bass = -8 to 8 (0x2A ~ 0x3A) Of the user-selectable range

Sending other messages

In addition to a command summary, this section includes the commands for the following items.

- Operating hours
- Auto adjust
- Serial code
- Temperature sensors
- Tiling
- Backlight level
- Factory reset
- IR remote command

Sending operating hours commands

Learn the commands for recording the working hours of a display panel.

Commands

Type	Bytes	Values
GET	DATA[0]	0x0F
	DATA[1]	0x01 = Current source status
		0x02 = operating hours (all other values are reserved)
REPORT	DATA[0]	0x0F
	DATA[1]	0x00
	DATA[2]	0x01 = Signal loss
		0x02 = Signal stable

Sending auto adjust setting commands

Learn the commands for the video auto adjust feature on the host controller (VGA).

Commands

Type	Bytes	Values
SET	DATA[0]	0x70
	DATA[1]	0x40 = Auto adjust (all other values are reserved
	DATA[2]	Reserved (fixed 0)

Sending serial code commands

Learn the commands for obtaining or reporting serial code information.

Commands

Type	Bytes	Values
GET	DATA[0]	0x15
REPORT	DATA[0]	0x15
	DATA[1]	First character (ASCII character map)
	DATA[2]	Second character
	DATA[3]	Third character
	DATA[14]	14th character

Sending temperature sensor commands

Learn the commands for obtaining and reporting temperature sensor information.

Temperature values received from the display panel are withing a range of 3°C.

Commands

Type	Bytes	Values
GET	DATA[0]	0x2F
REPORT	DATA[0]	0x2F
	DATA[1]	Temperature sensor 1 = 0-100°C, reported in hex values

Sending tiling commands

Learn the commands for obtaining or setting the tiling status.

Note 1

1. The maximum position value is 100 (hexadecimal value is 0x64).
2. The position is counted from left to right, then up to down in the array.

See Figure 1 for the hexadecimal position value in a 4x3 array. See Figure 2 for the hexadecimal position value in a 5x5 array.

Note 2

1. The maximum H monitors are 10 and the maximum V monitors are 10. The formulas for DATA[4], V monitors and H monitors are as follows:
   - H monitors = MOD(DATA[4], 10) (DATA[4]/10, take the remainder)
   - V monitors = INT(DATA[4], 10) + 1 (DATA[4]/10, take the quotient and add one)
   - DATA[4] = (V monitors - 1) x 10 + H monitors

For example, if H monitors = 10, and V monitors = 6, the DATA[4] value is (6-1) x 10 + 10 = 60.

Figure 1—The hexadecimal position values in a 4x3 array.

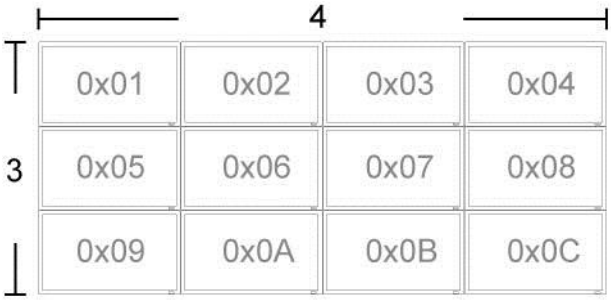
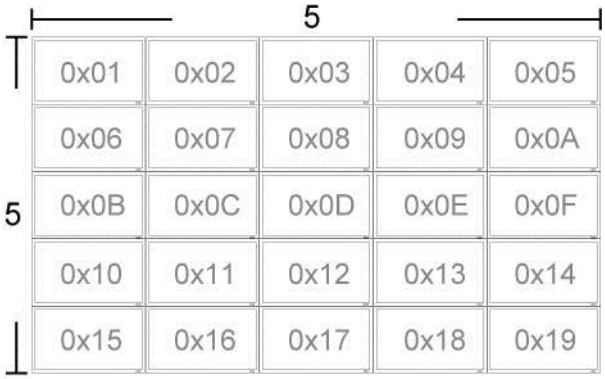


Figure 2—The hexadecimal position values in a 5x5 array.



Commands

Type	Bytes	Values
GET	DATA[0]	0x23
REPORT	DATA[0]	0x23
	DATA[1]	0x00 = Do not enable

Type	Bytes	Values
		0x01 = Enable
	DATA[2]	0x00 = No frame comp.
		0x01 = Frame comp.
	DATA[3]	0x01 = Position 1
		0x02 = Position 2
	DATA[4]	0x00 = no value
		0x01 = V monitors = 1, H monitors = 1
		0x02 = V monitors = 1, H monitors = 2
SET	DATA[0]	0x22
	DATA[1]	0x00 = Do not enable
		0x01 = Enable
	DATA[2]	0x00 = No frame comp.
		0x01 = Frame comp.
		0x02 = Keep the previous value and do not overwrite the setting
	DATA[3]	0x00 = Keep the previous value and do not overwrite the setting
		0x01 = Position 1
		0x02 = Position 2
	DATA[4]	0x00 = Keep the previous value and do not overwrite the setting
		0x01 = Position 1
		0x02 = Position 2

Sending blacklight level commands

Learn the commands for obtaining and setting the blacklight level on a display panel.

Commands

Type	Bytes	Values
GET	DATA[0]	0x31
REPORT	DATA[0]	0x31
	DATA[1]	Backlight value = 0 to 100 of the user-selectable range
SET	DATA[0]	0x30

Type	Bytes	Values
	DATA[1]	Backlight value = 0 to 100 of the user-selectable range

Sending a factory reset command

Learn the command that is used to reset customized settings to factory defaults.

Command

Type	Bytes	Values
SET	DATA[0]	0xFE

Sending an IR remote command

Learn the commands that are used to send an IR key to the control display panel.

Command

Type	Bytes	Values
SET	DATA[0]	0xFD
	DATA[1]	0xA0 = Power
		0xA1 = Menu
		0xA2 = Input
		0xA3 = Volume up
		0xA4 = Volume down
		0xA5 = Mute
		0xA6 = Cursor up
		0xA7 = Cursor down
		0xA8 = Cursor left
		0xA9 = Cursor right
		0xB1 = OK
		0xB2 = Return
		0xC1 = Red
		0xC2 = Green
		0xC3 = Yellow
		0xC4 = Blue
		0xD1 = Format
		0xD2 = Info

Type	Bytes	Values
		0x00 = Button 0
		0x01 = Button 1
		0x02 = Button 2
		0x03 = Button 3
		0x04 = Button 4
		0x05 = Button 5
		0x06 = Button 6
		0x07 = Button 7
		0x08 = Button 8
		0x09 = Button 9

Troubleshooting

Learn about common issues and their solutions.

I cannot connect to the panel using a LAN connection

If you cannot connect to the display panel using a LAN connection, try any of the following.

Resolution

- Verify that the correct IP address is entered and that port 5000 is entered.
- Verify that the network switch between the computer and display panel is active.
- Verify that the Hercules SETUP utility is correctly set up. For more information, see the Hercules SETUP utility help on the *HW-Group website*.

Commands are not functioning as expected

If commands are not behaving as expected, verify the following.

Resolution

- Verify that the checksum was correctly calculated.
- Verify that the Monitor ID is correct.
- Verify that the length value is updated to reflect the number of data variables. For more information on the command format, see *Understanding the command format* (on page 6).
- Verify that all values are written in hexadecimal notation.

Corporate offices

USA – Cypress
ph: 714-236-8610

Canada – Kitchener
ph: 519-744-8005

Consultant offices

Italy
ph: +39 (0) 2 9902 1161

Worldwide offices

Australia
ph: +61 (0) 7 3624 4888

Brazil
ph: +55 (11) 2548 4753

China (Beijing)
ph: +86 10 6561 0240

China (Shanghai)
ph: +86 21 6278 7708

Eastern Europe and
Russian Federation
ph: +36 (0) 1 47 48 100

France
ph: +33 (0) 1 41 21 44 04

Germany
ph: +49 2161 664540

India
ph: +91 (080) 6708 9999

Japan (Tokyo)
ph: 81 3 3599 7481

Korea (Seoul)
ph: +82 2 702 1601

Republic of South Africa
ph: +27 (0)11 510 0094

Singapore
ph: +65 6877-8737

Spain
ph: +34 91 633 9990

United Arab Emirates
ph: +971 4 3206688

United Kingdom
ph: +44 (0) 118 977 8000

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