Command Code

PDxx02

Version: 1.3

www.agneovo.com

1. INTRODUCTION

1.1 Purpose

The purpose of this document is to explain in detail the commands and steps that can be used to control a display via RS232C or LAN.

1.2 RS-232 / 422/485 Remote Control

a. Communication system: Asynchronous
b. Interface : RS-232 / 422/485
c. Baud Rate : 9600 bps
d. Data Length : 8 bits
e. Parity : None
f. Stop Bit : 1 bit
g. Flow Control : None

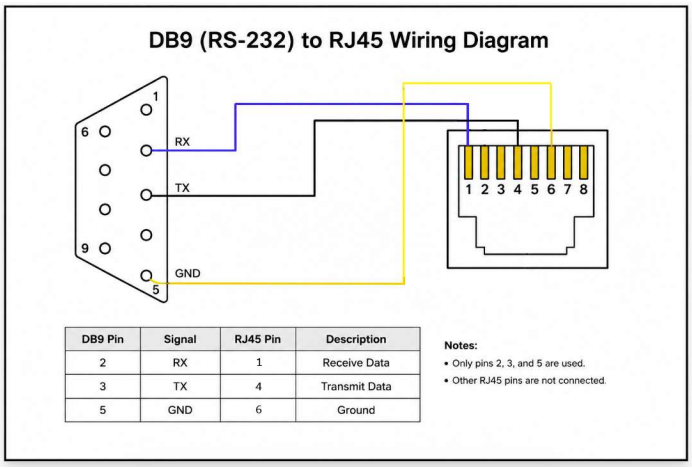
1.2.1 Communication Timing

The controller should wait for a packet interval before next command is sent.
The packet interval needs to be longer than 500 milliseconds for the LCD monitor.

1.2.2 RS-232 IO PIN Assignment

RS232 In/Out: RJ45 jack

The Pin Assignments for DB9 Female connector



1.3 LAN Control

a. Communication system: TCP/IP
b. Interface: Ethernet
c. Communication layer: TCP
d. IP address: DHCP or STATIC IP
e. Port No.: 5000

[Note]
The monitor will disconnect the connection if no packet data is received for 15 minutes.
And the controller (PC) has to re-connect to control the monitor again, after 15 minutes or more.

1.3.1 Communication Timing

The controller should wait for a packet interval before next command is sent.
The packet interval needs to be longer than 500 milliseconds for the LCD monitor.

2. Command Format

The Command packet format:

Set Control Command

Header	Length	Monitor ID	Reserved	CMD Type	CMD Code	Data[0]	Data[n]	Delimiter
0xA8	0x08	0x01	0x00	0x73	0x20	0x32	depends on function	0x0D
0x25	0x06	0x01	0x00	0x2B	0x20	x	x	0x0D
0x25	0x07	0x01	0x00	0x2B	0x20	replay Setting value 0x32		0x0D
0x25	0x07	0x01	0x00	0x2D	0x20	error code : 0x01 = no this command (NACK) 0x02 = parameter error (NAV) 0x03 = Length error 0x04 = CR / Delimiter error	x	0x0D

Get Control Command(A)

Header	Length	Monitor ID	Reserved	CMD Type	CMD Code	Data[0]	Data[n]	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x20	x	x	0x0D
0x25	0x07	0x01	0x00	0x2D	0x20	error code : 0x01 = no this command (NACK) 0x02 = parameter error (NAV) 0x03 = Length error 0x04 = CR / Delimiter error	x	0x0D

Type A : RS232 IN/OUT Mode

When the Command's Monitor ID is 0x00, the monitor executes but does not reply message.

If the Command's prefix code does not match, the display will not execute and will not reply the message.

When the Command's Monitor ID does not match, the monitor will not execute and not reply message.

Get Control Command(B)

Header	Length	Monitor ID	Reserved	CMD Type	CMD Code	Data[0]	Data[n]	Delimiter
0xA8	0x07	0x01	0x00	0x67	0XA9	0x00	x	0x0D
0x25	0x07	0x01	0x00	0x72	0XA9	0x01	x	0x0D

Type B : RS232 IN only (Define by AG Neovo at Special model only)

If the Command prefix code does not match, the display will reply the error message

When the Command Monitor ID does not match, the monitor will reply error message.

When the Command Monitor ID is 0x00, the monitor executes and reply message.

Fixed Monitor ID to 0x01 (Define by AG Neovo at Special model only , without Out port)

Set Command: A:Monitor Reply ACK / B:Monitor Reply ACK

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Data[1]	Data[2]	Delimiter
0xA8	0x09	0x01	0x00	0x73	0x29	0x90	0x85	0x77	0x0D
0x25	0x06	0x01	0x00	0x2B	0x29	x	x	x	0x0D
0x25	0x09	0x01	0x00	0x2B	0x20	0x90	0x85	0x77	0x0D

Feedback Status

Header	Length	Monitor ID	Reserved	CMD Type	CMD Code	Data[0]	Data[n]	Delimiter
0x25	0x07	0x01	0x00	f = 0x66	0x37	0x01	x	0x0D

Set Command format

Number of Field	Name of Field	Description
Byte 1	Header	0xA8
Byte 2	Length	Indicates the total number of bytes of the command (from Length byte to delimiter byte)

Byte3	Monitor ID	Single mode: ID: 0 (mean Broadcasting Mode) Single mode: ID range from 1 to 255 Broadcast mode: ID is 0 which indicates no ACK or no Report is expected.
Byte4	Reserved	0x00
Byte5	CMD Type	0x73
Byte6	CMD Code	Objects that define specific operations
Byte 7	Data[0]	Send to Monitor Data or Parameter
Byte 8	Data[n]	Depends on function
Byte 9	Delimiter	0x0D

Reply Message format

Number of Field	Name of Field	Description
Byte 1	Header	0x25
Byte 2	Length	Indicates the total number of bytes of the command (from Length byte to delimiter byte)
Byte3	Monitor ID	Monitor ID Range : 1 ~ 255
Byte4	Reserved	0x00
Byte5	CMD Type	0x2B: ACK (**Command is well executed.**) 0x2D: NACK / Error Code
Byte6	CMD Code	The specific operations
Byte7	Data[0]	When reply CMD type is 0x2D Error Code 0x01: no this command (NACK) 0x02: parameter error (NAV) 0x03: Length error 0x04 : CR/Delimiter error
Byte 8	Delimiter	0x0D

Note: there is no reply message when the wrong ID or wrong Header Coed is being used.

Get Command format

Number of Field	Name of Field	Description
Byte 1	Header	0xA8
Byte 2	Length	Indicates the total number of bytes of the command (from Length byte to delimiter byte)
Byte3	Monitor ID	Monitor ID Range : 1 ~ 255
Byte4	Reserved	0x00
Byte5	CMD Type	0x67
Byte6	CMD Code	Objects that define specific operations
Byte7	Delimiter	0x0D

Reply Message format

Number of Field	Name of Field	Description
Byte 1	Header	0x25
Byte 2	Length	Indicates the total number of bytes of the command (from Length byte to delimiter byte)
Byte3	Monitor ID	Monitor ID Range : 1 ~ 255
Byte4	Reserved	0x00

Byte5	CMD Type	0x72: ACK (**Command is well executed.**) 0x2D: NACK / error Code
Byte6	CMD Code	the specific operations
Byte7	Data[0]	when CMD Type 0x72: this byte is Data When CMD Type 0x2D: this byte is error code 0x01: no this command (NACK)
Byte 8	Delimiter	Fixed : 0x0D

Note: there is no reply message when the wrong ID or wrong Header Coed is being used.

3. Message General

3.1 Model Name

Example: Get Model Name

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0xA1	0x0D

Example: Display Reply Model Name "PD4302"

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Data[1]
0x25	0x0C	0x01	0x00	0x72	0xA1	50	44

Data[2]	Data[3]	Data[4]	Data[5]	Delimiter
34	33	30	32	0x0D

Example: Display Reply Model Name "PD5502"

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Data[1]
0x25	0x0C	0x01	0x00	0x72	0xA1	50	44

Data[2]	Data[3]	Data[4]	Data[5]	Delimiter
35	35	30	32	0x0D

3.2 Power State

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x5D = Power State - Set		Command to change the Power State of the display.
Data [0]	Power State		0x00 = Power Off 0x01 = Power On

Example: Set Power On

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x5D	0x01	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x5D	0x0D

3.3 Screen Mute (Blackout/ Restore)

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x69 = Screen Mute (Blackout/ Restore)		Command to change the Screen Mute (Blackout/ Restore) parameters of the display.
Data [0]	Screen Mute (Blackout/ Restore)		0x00 = Off(Restore) 0x01 = On(Blackout)

Example: Set Screen Mute (Blackout) On

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x69	0x01	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x69	0x0D

Example: Get Screen Mute (Blackout/ Restore)

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x69	0x0D

Example: Display Reply Screen Mute (Blackout/ Restore)

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x69	0x00 = Off(Restore) 0x01 = On(Blackout)	0x0D

3.4 Input Source Set

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x5F = Video Source - Set		Command to change the video source parameters of the display.
Data [0]	Input Source		0x06 = HDMI1 0x09 = HDMI2 0x07 = Display Port 0x08 = Type-C 0x04 = VGA 0x0B = SDM

Example: Set Input – Set Source to HDMI 1

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x5F	0x06	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x5F	0x0D

Example: Get Input Source

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x5F	0x0D

Example: Display Reply Input Source

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x5F	0x06 = HDMI1 0x09 = HDMI2 0x07 = Display Port 0x08 = Type-C 0x04 = VGA 0x0B = SDM	0x0D

3.5 Picture Mode

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x2E = Picture Mode - Set		Command to change the Picture mode parameters of the display.
Data [0]	Picture Mode		0x00 =Standard 0x04 =Video 0x05 =Signage 0x06 =Surveillance

Example: Set Picture mode to Standard

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x2E	0x00	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x2E	0x0D

Example: Get Picture Mode

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x2E	0x0D

Example: Display Reply Picture Mode

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x2E	0x00 =Standard 0x04 =Video 0x05 =Signage 0x06 =Surveillance	0x0D

3.6 Brightness Level

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x20 = Brightness level - Set		Command to change the Brightness level of the display.
Data [0]	Brightness level		0x00 ~ 0x64 (0 ~ 100) of the user selectable range of the display. OSD: 0 (0x00); OSD: 100 (0x64)

Example: Brightness level – Set OSD 50 – 0x32

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x20	0x32	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x20	0x0D

Example: Get Brightness level

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x20	0x0D

Example: Display Reply Brightness level

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x20	0x00~64	0x0D

3.7 Backlight Level

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x2A = Backlight level - Set		Command to change the backlight level of the display.
Data [0]	Backlight level		0x00 ~ 0x64 (0 ~ 100) of the user selectable range of the display. OSD: 0 (0x00); OSD: 100 (0x64)

Example: Backlight level – Set OSD 50 – 0x32

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x2A	0x32	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x2A	0x0D

Example: Get Backlight level

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x2A	0x0D

Example: Display Reply Backlight level

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x2A	0x00~64	0x0D

3.8 Aspect Ratio

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x2C = Aspect Ratio - Set		Command to change the Aspect Ratio of the display.
Data [0]	Aspect Ratio		0x00 = 4:3 0x01 = Native 0x02 = 1 : 1 0x03 = Full

Example: Set Aspect Ratio to Native

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x2C	0x01 = Native	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x2C	0x0D

Example: Get Aspect Ratio

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x2C	0x0D

Example: Display Reply Aspect Ratio

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x2C	0x00 = 4:3 0x01 = Native 0x02 = 1 : 1 0x03 = Full	0x0D

3.9 Volume

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x50 = Volume - Set		Command to change the audio volume level of the display.
Data [0]	Volume level		0x00 ~ 0x64 (0 ~ 100) of the user selectable range of the display. OSD: 0 (0x00); OSD: 50 (0x32); OSD: 100 (0x64)

Example: Set Volume to level 50

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x50	0x32	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x50	0x0D

Example: Get Volume

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x50	0x0D

Example: Display Reply Volume

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x50	0x00~64	0x0D

3.10 Sound Mute

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x51 = Sound Mute - Set		Command to change the audio mute parameters of the display.
Data [0]	Sound Mute		0x00 = Off 0x01 = On

Example: Set Sound Mute On

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x51	0x01	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x51	0x0D

Example: Get Sound Mute

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x51	0x0D

Example: Display Reply Sound Mute

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x51	0x00 = Off 0x01 = On	0x0D

3.11 PIP Mode

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x9B = PIP Mode - Set		Command to change the PIP mode parameters of the display.
Data [0]	PIP Mode		0x00 = OFF 0x01 = PIP 0x02 = PBP 2 WIN

Example: Set PIP mode to PBP 2 WIN

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x9B	0x02	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x9B	0x0D

Example: Get PIP Mode

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x9B	0x0D

Example: Display Reply PIP Mode

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x9B	0x00 = OFF 0x01 = PIP 0x02 = PBP 2 WIN	0x0D

3.12 PIP Size

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x9E = PIP Size - Set		Command to change the PIP Size parameters of the display.
Data [0]	PIP Size		0x00 = SMALL 0x01 = MIDDLE 0x02 = LARGE

Example: Set PIP Size to LARGE

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x9E	0x02	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x9E	0x0D

Example: Get PIP Size

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x9E	0x0D

Example: Display Reply PIP Size

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x9E	0x00 = SMALL 0x01 = MIDDLE 0x02 = LARGE	0x0D

3.13 Source Switching

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x5B = Source Switching - Set		Command to change the Source Switching parameters of the display.
Data [0]	Source Switching		0x00 = Manual 0x01 = Auto 0x02 = Failover

Example: Set Source Switching to Auto

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x5B	0x01	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x5B	0x0D

Example: Get Source Switching

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x9B	0x0D

Example: Display Reply Source Switching

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x9B	0x00 = Manual 0x01 = Auto 0x02 = Failover	0x0D

3.14 Power Indicate LED

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x67 = Power Indicate LED - Set		Command to change the LED Indicator parameters of the display.
Data [0]	Power Indicate LED		0x00 = Off 0x01 = On

Example: Set Power Indicate LEDr On

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x67	0x01	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x67	0x0D

Example: Get Power Indicate LED

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x67	0x0D

Example: Display Reply Power Indicate LED

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x67	0x00 = Off 0x01 = On	0x0D

3.15 Standby

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x59 = Standby - Set		Command to change the Standby parameters of the display.
Data [0]	Standby		0x00 = Off (Off) No Enter Standby / Power Saving , always on 0x01 = On (Normal) No signal enter Standby / power saving, signal recover can wake up 0x02 = ECO (Signal recover ,display no active)

Example: Set Standby On

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x59	0x01	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x59	0x0D

Example: Get Standby

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x59	0x0D

Example: Display Reply Standby

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x59	0x00 = Off 0x01 = On 0x02 = ECO	0x0D

3.16 Anti-Burn-In

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x7D = Anti-Burn-In - Set		Command to change the Anti-Burn-In parameters of the display.
Data [0]	Anti-Burn-In		0x00 = Off 0x01 = On

Example: Set Anti-Burn-In On

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x7D	0x01	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x7D	0x0D

Example: Get Anti-Burn-In

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x7D	0x0D

Example: Display Reply Anti-Burn-In

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x7D	0x00 = Off 0x01 = On	0x0D

3.17 IR Lock

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x62 = IR Lock - Set		Command to change the Remote Control Lock parameters of the display.
Data [0]	Remote Control Lock		0x00 = Unlock all /Off 0x01 = Lock all 0x02 = Lock Except Power

Example: IR Lock Set to Unlock all

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x62	0x00	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x62	0x0D

Example: Get IR Lock

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x62	0x0D

Example: Display IR Lock

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x62	0x00 = Unlock all/Off 0x01 = Lock all 0x02 = Lock Except Power	0x0D

3.18 Key Lock

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x63 = Key Lock - Set		Command to change the Monitor Button Lock parameters of the display.
Data [0]	Key Lock		0x00 = Unlock all/Off 0x01 = Lock all 0x02 = Lock Except Power

Example: Key Lock Set to Unlock all

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x63	0x00	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x63	0x0D

Example: Get Key Lock

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0xA8	0x06	0x01	0x00	0x67	0x63	0x0D

Example: Display Key Lock

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x72	0x63	0x00 = Unlock all/Off 0x01 = Lock all 0x02 = Lock Except Power	0x0D

3.19 IR Remote Control

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x66 = IR Remote Control - Set		Command to change the IR Remote Control parameters of the display.
Data [0]	IR Remote Control		0xA0= Power 0xA1= Menu 0xA2= Input 0xA3= Vol_Up 0xA4= Vol_Down 0xA5= Mute 0xA6= Cursor_Up 0xA7= Cursor_Down 0xA8= Cursor_Left 0xA9= Cursor_Right 0xB1= OK 0xB2= Return

Example: IR Remote Control Set to Power

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Data[0]	Delimiter
0xA8	0x07	0x01	0x00	0x73	0x66	0xA0	0x0D

Message - Set - ACK Reply

Header	Length	Monitor ID	reserved	CMD Type	CMD Code	Delimiter
0x25	0x06	0x01	0x00	0x2B	0x66	0x0D

3.20 Status Feedback

Message – Set

Bytes	Bytes Description	Bits	Description
CMD Code	0x37= Status Feedback - Set		Command to change the Status Feedback parameters of the display.
Data [0]	Status Feedback		0x01: Signal Loss Alert 0x02: Overheat Alert Feedback Status Message to Host Monitor ID= OSD Monitor ID

Feedback Status

Header	Length	Monitor ID	Reserved	CMD Type	CMD Code	Data[0]	Delimiter
0x25	0x07	0x01	0x00	0x66	0x37	0x01: Signal Loss Alert 0x02: Overheat Alert	0x0D

4. Command Summary

Command Name	Set Command	Get Command	Command Code	Parameter / Data
Model Name	x	V	0xA1	PD4302 PD5502
Power State	V	x	0x5D	0x00 = Power Off 0x01 = Power On
Screen Mute (Blackout/ Restore)	V	V	0x69	0x00 = Off(Restore) 0x01 = On(Blackout)
Input Source Set	V	V	0x5F	0x06 = HDMI1 0x09 = HDMI2 0x07 = Display Port 0x08 = Type-C 0x04 = VGA 0x0B = SDM
Picture Mode	V	V	0x2E	0x00 =Standard 0x04 =Video 0x05 =Signage 0x06 =Surveillance
Brightness Level	V	V	0x20	0 ~ 100 (0x00 ~ 0x64)
Backlight Level	V	V	0x2A	0 ~ 100 (0x00 ~ 0x64)
Aspect Ratio	V	V	0x2C	0x00 = 4:3 0x01 = Native 0x02 = 1 : 1 0x03 = Full
Volume	V	V	0x50	0 ~ 100 (0x00 ~ 0x64)
Sound Mute	V	V	0x51	0x00 = Mute Off 0x01 = Mute On
PIP Mode	V	V	0x9B	0x00 = OFF 0x01 = PIP (Source 1 & 2) 0x02 = PBP 2 WIN (Source 1 & 2)
PIP Size	V	V	0x9E	0x00 = SMALL 0x01 = MIDDLE 0x02 = LARGE
Signal Detection	V	V	0x5B	0x00 = Manual 0x01 = Auto 0x02 = Failover
Power Indicate LED	V	V	0x67	0x00 = Off 0x01 = On
Standby	V	V	0x59	0x00 = Off (Off) No Enter Standby / Power Saving , always on 0x01 = On (Normal) No signal enter Standby / power saving, signal recover can wake up 0x02 = ECO (Signal recover ,display no active)
Anti-Burn-In	V	V	0x7D	0x00 = Off 0x01 = On
IR Lock	V	V	0x62	0x00 = Unlock all /Off 0x01 = Lock all

				0x02 = Lock Except Power
Key Lock	V	V	0x63	0x00 = Unlock all /Off 0x01 = Lock all 0x02 = Lock Except Power
IR REMOTE CONTROL	V	x	0x66	0xA0= Power 0xA1= Menu 0xA2= Input 0xA3= Vol_Up 0xA4= Vol_Down 0xA5= Mute 0xA6= Cursor_Up 0xA7= Cursor_Down 0xA8= Cursor_Left 0xA9= Cursor_Right 0xB1= OK 0xB2= Return
Status Feedback	F	F	0X37	0x01: Signal Loss Alert 0x02: Overheat Alert
Get Model Series Number	x	V	0xA3	Data[0] ~ Data[15] Model Series Number 16 digital
Get Model OP Hours	x	V	0XA4	Data[0] : MSB Byte Data[1] : LSB Byte Operating Hours : DATA[0] and DATA[1] form the MS-Byte and LS-Byte, respectively, of the 16-bit-wide Operational Hours value
Get Thermal Data	x	V	0XA5	one thermal Sensor Data[0] Sensor Thermal Data 0x01~0x64 (0~100) multi-thermal Sensor Data[0] : Sensor 1 Thermal Data Data[1] : Sensor 2 Thermal Data
Get Model FW version	x	V	0XA6	Reply: Scaler / SOC Firmware V0.01 25,0B,01,00,72,A6,56,30,2E,30,31,0D

5. Revision History

Date	Revision	Description	Remark
2026/1/12	V1.0	PDxx02 Control Command List	
2026/5/18	V1.1	Delete ECO Smart Sensor	
2026/5/18	V1.2	Delete: Backlight Fault Alert	
2026/6/1	V1.3	Revise RS-232 IO PIN Assignment draw.	