Avenview

Control Your Video...

Control Commands

HDMI

AUDIO

IR

WUXGA
1920x1200

HDMI
HDCP

HD
ready
1080p

RoHS
Compliant

Model #: HDM2-PROWALL-T4K

SECTION 1: COMMAND PROTOCOL FORMAT (USB to SERIAL PORT)

1.	SERIAL PORT SETTING

Mini USB cable from PC

USB A

1 2 3 4

Ground (Earth)

VCC +5V
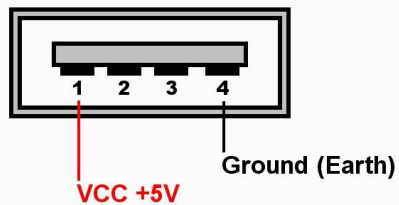
View from socket end

USB mini

1 2 3 4 5

Ground (Earth)

VCC +5V
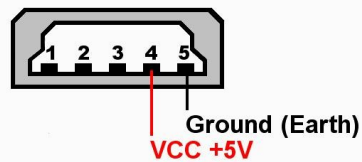
View from socket end

The first three bytes of command is header 0x7a 0xc1 0x5f
The 4th bytes of the command is (length of the commands).(do not include the header) Define byte:bit7 bit6 bit5 bit4 bit3 bit2 bit1 bit0
Checksum is total sum of command number. (not include header)
Ex:0x7a 0xc1 0x5f 0x03 0x01
checksum Checksum=0x03
+0x01=0x04

1.Get Information of the input and which resolution
Command:0x7a 0xc1 0x5f 0x04 0x04 0x00 0x08
Feedback:03 81 84 0xaa Signal 4k2kFlag
WidthHighByte WidthLowByte HeightHighByte HeightLowByte
RotationMode
VideoMode Synchronize 03 03 06
Signal ->1: input with signal
0: No signal
4k2kFlag->1:Source is 4k2k 60/30
        0:Source not 4k2k 60/30
Width=widthHighByte<<8+ widthLowByte
ex:1920 =0x07<<8+ 0x80 =0x780
Height is also shown the same as above.
RotationMode:Current display mode is in rotated mode
VideoMode: :Current display mode is in videowall mode
Synchronize->1:Output is Synchronize 0:output is not Synchronize

*When Synchronize mode 4 output need set to the same resolution.

2.Get output resolution

Command:0x7a 0xc1 0x5f 0x05 0x04 0x04 0x00 0x0D
Feedback:03 81 84 Out1 Out2 Out3 Out4 03 03 06
out1-out4 are index of each output resolution
index is form 0 to 14
640x480、480P、576P、800x600、1024x768、720P、1280x768、1280x960
1280x1024、1366x768、1440x900、1680x1050、1080P、1920x1200、1600x1200

3.Set output resolution

Command:0x7a 0xc1 0x5f 0x06 0x04 0x04 0x01 output resolution checksum
Output is index of out1-out4 ->value 0-3 out1-0 out2-1 out3-2 out4-3
Resolution index is form 0 to 14
640x480、480P、576P、800x600、1024x768、720P、1280x768、1280x960
1280x1024、1366x768、1440x900、1680x1050、1080P、1920x1200、1600x1200

Feedback:03 81 84 03 03 06

4.Synchronize enable/disable
Command:0x7a 0xc1 0x5f 0x05 0x04 0x05 enable checksum
Enable->1:enable 0:disable
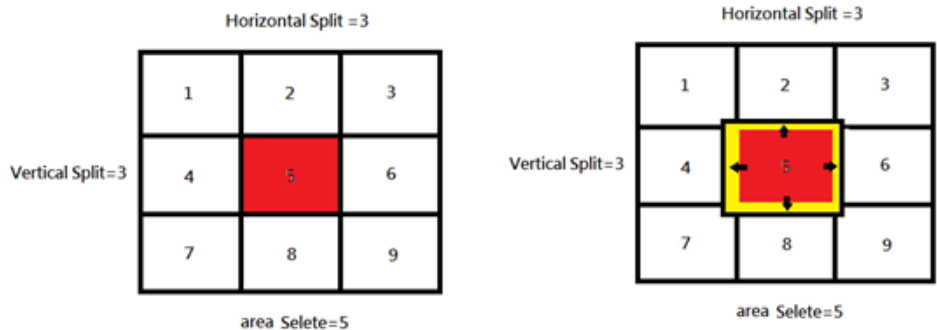**Feedback:03 81 84 03 03 06**

5. Set Split video wall setting (except 4k2k)
Command:0x7a 0xc1 0x5f 0x05 0x04 0x01 outIndex areaSelect HorizontalSplit verticalSplit
LeftHB LeftLB RightHB RightLB UpHB UpLB DownHB DownLB checksum
outIndex: out1-0 out2-1 out3-2 out4-3
EX:

As per the right picture,you can set left right up and down parameter to enlarge area selected.
Left=LeftHB<<8+LeftLB
Right=RightHB<<8+RightLB
Up=UpHB<<8+UpLB
Down=DownHB<<8+DownLB

6. Get Split video wall setting
Command:0x7a 0xc1 0x5f 0x05 0x04 0x02 outIndex checksum
Feedback:03 81 84 areaSelect HorizontalSplit verticalSplit LeftHB LeftLB RightHB RightLB UpHB UpLB DownHB DownLB 03 03 06

7.Get split video setting when input is 4k2k
Command:0x7a 0xc1 0x5f 0x04 0x0a outIndex checksum
outIndex: out1-0 out2-1 out3-2 out4-3
Feedback:03 81 84 HorizontalStartHB HorizontalStartLB VerticalStartHB VerticalStartLB WidthHB WidthLB HeightHB HeightLB 03 03 06

8. Set split video setting when input is 4k2k

Command:0x7a 0xc1 0x5f 0x0D 0x09 0x00 HorizontalStartHB HorizontalStartLB VerticalStartHB VerticalStartLB WidthHB WidthLB HeightHB HeightLB outIndex checksum

outIndex: out1-0 out2-1 out3-2 out4-3

Weight not over 1920 and Height not over 1080

Feedback:03 81 84 03 03 06

9.Fast split

Command:0x7a 0xc1 0x5f 0x05 0x04 0x03 type checksum

Type: 0x00:full screen 1x1

   0x01 layout 2x2

   0x02 layout 1x4

   0x03 layout 4x1

Feedback:03 81 84 03 03 06

10.Fast split with rotation(rotate only support I/O 1080P)

Command:0x7a 0xc1 0x5f 0x05 0x04 0x06 type checksum

Type: 0x01:1x3 rotate -90

   0x02 1x4 rotate +90

   0x03 1x3 rotate -90

   0x04 1x4 rotate +90

Feedback:03 81 84 03 03 06

11.Learn EDID deault

Command:0x7a 0xc1 0x5f 0x05 0x04 0x09 0x01 EDID-index

EDID-index: 0x00->1080P 0x01->1080i/720P 0x02->4k2k

Feedback:03 81 84 03 03 06

12.Learn EDID Display

Command:0x7a 0xc1 0x5f 0x05 0x04 0x09 0x02 EDID-index

EDID-index: out1-0x0 out2-0x1 out3-0x2 out4-0x3

13.Read IP config

Command:0x7a 0xc1 0x5f 0x03 0x93 0x00

Feedback:03 81 84 DHCP/Static IP1 IP2 IP3 IP4 mask1 mask2 mask3 Mask4 gateway1 gateway2 gateway3 gateway4 03 03 06

DHCP/Static:DHCP=0 Static=1

14. Set IP config
Command:0x7a 0xc1 0x5f 0x03 0x93 0x01 DHCP/
Static IP1 IP2 IP3 IP4 mask1 mask2 mask3
Mask4 gateway1 gateway2 gateway3 gateway4
DHCP/Static:DHCP=0 Static=1 if set DHCP mode
IP mask gateway set to 0
Feedback:03 81 84 03 03 06

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