Hdmi Matrix4x2 Switch CN_AV function Help

V1.0

Precautions:

➢ If you have any questions about this module or the help documentation, please contact us.

Module name：Hdmi Matrix4x2 Switch CN_AV

Module function description：

➢ Support query matrix state, including power supply, video switching relationship, switching state and multiview status

➢ Support settingmatrix switching power supply, video switching relationship, switch Stream and multiview setting.

➢ Physical interface is Serial or TCP/IP.

Serial port protocol: baud rate: 115200(default)   Data bits: 8   Stop bits: 1 Check bit: 0

TCP/IP protocol port: 8000

Test Environment:

OPS USED FOR TESTING:	CP3N: v1.8000.4522.24170
SIMPL WINDOWS USED FOR TESTING:	4.17.03
DEVICE DB USED FOR TESTING:	200.9500.001.00
CRES DB USED FOR TESTING:	206.05.004.00
SYMBOL LIBRARY USED FOR TESTING:	104
SAMPLE PROGRAM:	3-Series: Test.smw

Parameter Description:

Inputparameterdescription:

➢ **[Buffer input]From_Device**

➢ **[Digital input]Get_Device_Status**

Signal used to get the connected device current status .

Signal used to receive character from the connected device.

➢ **[Digital input]Device_Reboot**

Singal used to reboot the connected device.

➢ **[Digital input]Power_On**

Singal used to turn on the connected device.

➢ **[Digital input]Power_Off**

Singal used to turn off the connected device.

➢ **[Digital input]Power_Toggle**

Singal used to toggle on or off the connected device.

➢ **[Digital input]Beep_On**

Singal used to turn on the connected device buzzer.

➢ **[Digital input]Beep_Off**

Singal used to turn off the connected device buzzer.

➢ **[Digital input]Beep_Toggle**

Singal used to toggle on or off the connected device buzzer.

➢ **[Digital input]Panel_Lock**

Singal used to turn on the connected device panel lock.

➢ **[Digital input]Panel_Unlock**

Singal used to turn off the connected device panel lock.

➢ **[Digital input]Panel_Toggle**

Singal used to toggle on or off the connected device panel lock.

➢ **[Digital input] Output_VKA_Black[X]**

Singal used to set output[X] video keep active pattern in black mode.The X range from 1-2.

➢ **[Digital input] Output_VKA_Blue[X]**

Singal used to set output[X] video keep active pattern in blue mode.The X range from 1-2.

➢ **[Digital input] Output_ITC_Video_Mode[X]**

Singal used to set output[X] video mode.The X range from 1-2.

➢ **[Digital input] Output_ITC_PC_Mode[X]**

Singal used to set output[X] pc mode.The X range from 1-2.

➢ **[Analog input] Set_Output_Resolution[X]**

Singal used to switch the resolution of the output the singal range from 1-15.
The X range from 1-2.

➢ **[Analog input] Set_Output_HDCP[X]**

Singal used to switch the HDCP of the output port,the singal range from 1-3.
The x range from 1-2.

➢ **[Digital input]Output_Audio_Mute_On[X]**

Singal used to set output audio mute on.The X range from 1-2.

➢ **[Digital input]Output_Audio_Mute_Off[X]**

Singal used to set output audio mute off.The X range from 1-2.

➢ **[Analog input] Output_Audio_Select[X]**

Signal is used to switch the input of the audio output[X],the singal range from 0-4.The X range from 1-2.

➢ **[Analog input] Output_Multiview[X]**

Singal used to set output[X] multi-viewer display mode.The singal range from 1-5.The   X range from 1-2.

➢ **[Analog input] Output_SingleScreen_Video_Select[X]**

Singal used to route input source to output[X] in the Single Screen mode.The singal range from 1-4.The X range from 1-2.

➢ **[Digital input]Output_Auto_Switch_Enable[X]**

Singal used to enable auto switch feature.The X range from 1-2.

➢ **[Digital input]Output_Auto_Switch_Disable[X]**

Singal used to disable auto switch feature.The X range from 1-2.

➢ **[Analog input] PIP_Output[X]_Window[Y]_Source_Select**

Singal used to select output one input for one display window in the PIP mode.The singal range from 1-4.The X range from 1-2.The Y range from 1-2.

➢ **[Digital input] PIP_Output[X]_Window[Y]_Border_On**

Singal used to set the border on of the specified window in the PIP mode.The X rang from1-2.The Y range from 1-2.

➢ **[Digital input] PIP_Output[X]_Window[Y]_Border_Off**

Singal used to set the border off of the specified window in the PIP mode.The X rang from1-2.The Y range from 1-2.

➢ **[Analog input] PIP_Output[X]_Window[Y]_Color**

Singal used to set the border color of the specified windowin the PIP mode.The singal range from 1-9.The X range from 1-2.The Y range from 1-2.

➢ **[Digital input]Set_PIP_Mode_HVSize[X]**

Singal used to set window to user define mode in the PIP mode.The X range from 1-2.

➢ **[Analog input] PIP_Mode_H_Start[X]**

Singal used to set window to horizontal starting distance in the PIP mode.The X range from 1-2.

➢ **[Analog input] PIP_Mode_H_Size[X]**

Singal used to set window to horizontal size in the PIP mode.The X range from 1-2.

- **[Analog input] PIP_Mode_V_Start[X]**

  Singal used to set window to vertical starting distance in the PIP mode.The X range from 1-2.

- **[Analog input] PIP_Mode_V_Size[X]**

  Singal used to set window to vertical size in the PIP mode.The X range from 1-2.

- **[Analog input]Set_PIP_Mode_Pos[X]**

  Singal used to set output[X] window position in the PIP mode.The singal range from 1-5,the X range from 1-2.

- **[Analog input]Set_PIP_Mode_Size[X]**

  Singal used to set output[X] window size in the PIP mode.The singal range from 1-4,the X range from 1-2.

- **[Analog input] PBP_Output[X]_Window[Y]_Source_Select**

  Singal used to select output[X] one input for one display window[Y] in the PBP mode.The singal range from 1-4.The X range from 1-2.The Y range from 1-2.

- **[Digital input] PBP_Output[X]_Window[Y]_Border_On**

  Singal used to set the border on of the specified window in the PBP mode.The X rang from1-2.The Y range from 1-2.

- **[Digital input] PBP_Output[X]_Window[Y]_Border_Off**

  Singal used to set the border off of the specified window in the PBP mode.The X rang from1-2.The Y range from 1-2.

- **[Analog input] PBP_Output[X]_Window[Y]_Color**

  Singal used to set the border color of the specified windowin the PBP mode.The singal range from 1-9.The X range from 1-2.The Y range from 1-2.

- **[Digital input]Set_PBP_Mode_DisplayMode1[X]**

  Singal used to set output windows display mode 1 in the PBP mode.The X range from 1-2.

- **[Digital input]Set_PBP_Mode_DisplayMode2[X]**

  Singal used to set output windows display mode 2 in the PBP mode.The X range from 1-2.

- **[Digital input]Set_PBP_Mode_AspectMode1[X]**

  Singal used to set output windows display full screen in the PBP mode.The X range from 1-2.

- **[Digital input]Set_PBP_Mode_AspectMode2[X]**

  Singal used to set output windows display 16:9 in the PBP mode.The X range from 1-2.

- **[Analog input] Triple_Output[X]_Window[Y]_Source_Select[X]**

  Singal used to select output one input for one display window in the Triple mode.The singal range from 1-4.The X range from 1-2.The Y range from 1-3.

➢ **[Digital input] Triple_Output[X]_Window[Y]_Border_On[X]**
Singal used to set the border on of the specified window in the Triple mode.The X rang from1-2.The Y range from 1-3.

➢ **[Digital input] Triple_Output[X]_Window[Y]_Border_Off[X]**
Singal used to set the border off of the specified window in the Triple mode.The X rang from1-2.The Y range from 1-3

➢ **[Analog input] Triple_Output[X]_Window[Y]_Color[X]**
Singal used to set the border color of the specified windowin the Triple mode.The singal range from 1-9.The X range from 1-2.The Y range from 1-3.

➢ **[Digital input]Set_Triple_Mode_DisplayMode1[X]**
Singal used to set output windows display mode 1 in the Triple mode.The X range from 1-2.

➢ **[Digital input]Set_Triple_Mode_DisplayMode2[X]**
Singal used to set output windows display mode 2 in the Triple mode.The X range from 1-2.

➢ **[Digital input]Set_Triple_Mode_AspectMode1[X]**
Singal used to set output windows display full screen in the Triple mode.The X range from 1-2.

➢ **[Digital input]Set_Triple_Mode_AspectMode2[X]**
Singal used to set output windows display 16:9 in the Triple mode.The X range from 1-2.

➢ **[Analog input] Quad_Output[X]_Window[Y]_Source_Select**
Singal used to select output one input for one display window in the Quad mode.The singal range from 1-4.The X range from 1-2.The Y range from 1-4.

➢ **[Digital input] Quad_Output[X]_Window[Y]_Border_On**
Singal used to set the border on of the specified window in the Quad mode.The X rang from1-2.The Y range from 1-4.

➢ **[Digital input] Quad_Output[X]_Window[Y]_Border_Off**
Singal used to set the border off of the specified window in the Quad mode.The X rang from1-2.The Y range from 1-4.

➢ **[Analog input] Quad_Output[X]_Window[Y]_Color**
Singal used to set the border color of the specified windowin the Quad mode.The singal range from 1-9.The X range from 1-2.The Y range from 1-4.

➢ **[Digital input]Set_Quad_Mode_DisplayMode1[X]**
Singal used to set output windows display mode 1 in the Quad mode.The X range from 1-2.

➢ **[Digital input]Set_Quad_Mode_DisplayMode2[X]**
Singal used to set output windows display mode 2 in the Quad mode.The X range from 1-2.

➢ **[Digital input]Set_Quad_Mode_AspectMode1[X]**

Singal used to set output windows display full screen in the Quad mode.The X range from 1-2.

➢ **[Digital input]Set_Quad_Mode_AspectMode2[X]**

Singal used to set output windows display 16:9 in the Quad mode.The X range from 1-2.

Outputparameterdescription:

➢ **[String Output]To_Device**

Signal used to send command to the connected device.

➢ **[Digital output]Device_Reboot_fb**

Singal used to indicate that the connected device is rebooting now.

➢ **[Digital output]Power_On_fb**

Singal used to indicate that the connected device is Powered On

➢ **[Digital output]Power_Off_fb**

Singal used to indicate that the connected device is Powered Off

➢ **[Digital output]Beep_On_fb**

Singal used to indicate that the connected device is Beeped On

➢ **[Digital output]Beep_Off_fb**

Singal used to indicate that the connected device is Beeped Off

➢ **[Digital output]Panel_Lock_fb**

Singal used to indicate that the connected device is Panel Locked On.

➢ **[Digital output]Panel_Unlock_fb**

Singal used to indicate that the connected device is Panel Locked Off.

➢ **[Digital input] Output_VKA_Black_fb[X]**

Singal used to indicate that output[X] video in black mode.The X range from 1-2.

➢ **[Digital input] Output_VKA_Blue_fb[X]**

Singal used to indicate that output[X] video in blue mode.The X range from 1-2.

➢ **[Digital input] Output_ITC_Video_Mode_fb[X]**

Singal used to indicate that output[X] video in video mode.The X range from 1-2.

➢ **[Digital input] Output_ITC_PC_Mode_fb[X]**

Singal used to indicate that output[X] pc mode.The X range from 1-2.

➢ **[Analog input] Set_Output_Resolution_fb[X]**

Singal used to indicate that output[X] resolution The X range from 1-2.

➢ **[Analog input] Set_Output_HDCP_fb[X]**

Singal used to indicate that output[X] HDCP,the singal range from 1-3.
The x range from 1-2.

➢ **[Digital input]Output_Audio_Mute_On_fb[X]**

Singal used to indicate that output[X] audio muted on.The X range from 1-2.

➢ **[Digital input]Output_Audio_Mute_Off_fb[X]**

Singal used to indicate that output[X] audio muted off.The X range from 1-2.

➢ **[Analog input] Output_Audio_Select_fb[X]**

Signal is used to indicate that audio output[X] current input.The X range from 1-2.

➢ **[Analog input] Output_Multiview_fb[X]**

Singal used to indicate that output[X] multi-viewer mode.The X range from 1-2.

➢ **[Analog input] Output_SingleScreen_Video_Select_fb[X]**

Singal used to indicate that output[X] input source in the Single Screen mode.The X range from 1-2.

➢ **[Digital input]Output_Auto_Switch_Enable_fb[X]**

Singal used to indicate that output[X] auto switch feature is enabled in the Single Screen mode.The X range from 1-2.

➢ **[Digital input]Output_Auto_Switch_Disable_fb[X]**

Singal used to indicate that output[X] auto switch feature is disabled in the Single Screen mode.The X range from 1-2.

➢ **[Analog input] PIP_Output[X]_Window_Source_Select[Y]**

Singal used to indicate that output[X] window[Y] input source in the PIP mode.The X range from 1-2.The Y range from 1-2.

➢ **[Digital input] PIP_Output[X]_Window[Y]_Border_On_fb**

Singal used to indicate that output[X] window[Y] border is turned on in the PIP mode.The X range from 1-2.The Y range from 1-2.

➢ **[Digital input] PIP_Output[X]_Window[Y]_Border_Off_fb**

Singal used to indicate that output[X] window[Y] border is turned off in the PIP mode.The X range from 1-2.The Y range from 1-2.

➢ **[Analog input] PIP_Output[X]_Window[Y]_Color_fb**

Singal used to indicate that output[X] window[Y] border color in the PIP mode.The X range from 1-2.The Y range from 1-2.

➢ **[Analog input]Set_PIP_Mode_Pos[X]**

Singal used to indicate that output[X] window position in the PIP mode.The X range from 1-2.

➢ **[Analog input]Set_PIP_Mode_Size[X]**

Singal used to indicate that output[X] window size in the PIP mode.The X range from 1-2.

➢ **[Analog input] PBP_Output[X]_Window_Source_Select[Y]**

Singal used to indicate that output[X] window[Y] input source in the PBP mode.The X range from 1-2.The Y range from 1-2.

➢ **[Digital input] PBP_Output[X]_Window[Y]_Border_On_fb**

Singal used to indicate that output[X] window[Y] border is turned on in the PBP mode.The X range from 1-2.The Y range from 1-2.

➢ **[Digital input] PBP_Output[X]_Window[Y]_Border_Off_fb**
Singal used to indicate that output[X] window[Y] border is turned off in the PBP mode.The X range from 1-2.The Y range from 1-2.

➢ **[Analog input] PBP_Output[X]_Window[Y]_Color_fb**
Singal used to indicate that output[X] window[Y] border color in the PBP mode.The X range from 1-2.The Y range from 1-2.

➢ **[Digital input]Set_PBP_Mode_DisplayMode1_fb[X]**
Singal used to indicate that output windows[X] display mode 1 in the PBP mode.The X range from 1-2.

➢ **[Digital input]Set_PBP_Mode_DisplayMode2_fb[X]**
Singal used to indicate that output[X] windows display mode 2 in the PBP mode.The X range from 1-2.

➢ **[Digital input]Set_PBP_Mode_AspectMode1_fb[X]**
Singal used to indicate that output[X] windows display full screen in the PBP mode.The X range from 1-2.

➢ **[Digital input]Set_PBP_Mode_AspectMode2_fb[X]**
Singal used to indicate that output[X] windows display 16:9 in the PBP mode.The X range from 1-2.

➢ **[Analog input] Triple_Output[X]_Window_Source_Select[Y]**
Singal used to indicate that output[X] window[Y] input source in the Triple mode.The X range from 1-2.The Y range from 1-3.

➢ **[Digital input] Triple_Output[X]_Window[Y]_Border_On_fb**
Singal used to indicate that output[X] window[Y] border is turned on in the Triple mode.The X range from 1-2.The Y range from 1-3.

➢ **[Digital input] Triple_Output[X]_Window[Y]_Border_Off_fb**
Singal used to indicate that output[X] window[Y] border is turned off in the Triple mode.The X range from 1-2.The Y range from 1-3.

➢ **[Analog input] Triple_Output[X]_Window[Y]_Color_fb**
Singal used to indicate that output[X] window[Y] border color in the Triple mode.The X range from 1-2.The Y range from 1-3.

➢ **[Digital input]Set_Triple_Mode_DisplayMode1_fb[X]**
Singal used to indicate that output windows[X] display mode 1 in the Triple mode.The X range from 1-3.

➢ **[Digital input]Set_Triple_Mode_DisplayMode2_fb[X]**
Singal used to indicate that output[X] windows display mode 2 in the Triple mode.The X range from 1-2.

➢ **[Digital input]Set_Triple_Mode_AspectMode1_fb[X]**
Singal used to indicate that output[X] windows display full screen in the Triple mode.The X range from 1-2.

➢ **[Digital input]Set_Triple_Mode_AspectMode2_fb[X]**
Singal used to indicate that output[X] windows display 16:9 in the Triple mode.The X range from 1-2.

➢ **[Analog input] Quad_Output[X]_Window_Source_Select[Y]**
Singal used to indicate that output[X] window[Y] input source in the Quad mode.The X range from 1-2.The Y range from 1-4.

➢ **[Digital input] Quad_Output[X]_Window[Y]_Border_On_fb**
Singal used to indicate that output[X] window[Y] border is turned on in the Quad mode.The X range from 1-2.The Y range from 1-4.

➢ **[Digital input] Quad_Output[X]_Window[Y]_Border_Off_fb**
Singal used to indicate that output[X] window[Y] border is turned off in the Quad mode.The X range from 1-2.The Y range from 1-4.

➢ **[Analog input] Quad_Output[X]_Window[Y]_Color_fb**
Singal used to indicate that output[X] window[Y] border color in the Quad mode.The X range from 1-2.The Y range from 1-4.

➢ **[Digital input]Set_Quad_Mode_DisplayMode1_fb[X]**
Singal used to indicate that output windows[X] display mode 1 in the Quad mode.The X range from 1-2.

➢ **[Digital input]Set_Quad_Mode_DisplayMode2_fb[X]**
Singal used to indicate that output[X] windows display mode 2 in the Quad mode.The X range from 1-2.

➢ **[Digital input]Set_Quad_Mode_AspectMode1_fb[X]**
Singal used to indicate that output[X] windows display full screen in the Quad mode.The X range from 1-2.

➢ **[Digital input]Set_Quad_Mode_AspectMode2_fb[X]**
Singal used to indicate that output[X] windows display 16:9 in the Quad mode.The X range from 1-2.