

BZBGEAR 16X16 4K UHD 18Gbps HDMI Matrix

Switcher Help

V1.1

Precautions:

- The matrix switch module is suitable for simplifying the production of the new version of BG-UHD-1616M matrix.
- If you have any questions about this module or the help documentation, please contact us.

Module function description:

- Support query matrix state, including power supply, buzzer, input/output connection state, video switching relationship, Scaler Mode, ARC switching state, Stream switching state.
- Support settingmatrix switching power supply, buzzer, change video switching relationship, switch ARC, change Scaler Mode, switch Stream.
- 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: Example.smw

Parameter Description:

Inputparameterdescription:

- [Digital input]GetSystemStatus

Signal used to get the connected device current status .

➤ **[Digital input]Reboot**

Singal used to reset the connected device.

➤ **[Digital input]PowerOn**

Singal used to turn on the connected device.

➤ **[Digital input]PowerOff**

Singal used to turn off the connected device.

➤ **[Digital input]BeepOn**

Singal used to turn on the connected device buzzer.

➤ **[Digital input]BeepOff**

Singal used to turn off the connected device buzzer.

➤ **[Digital input]PanelLockOn**

Singal used to turn on the connected device panel lock.

➤ **[Digital input]PanelLockOff**

Singal used to turn off the connected device panel lock.

➤ **[Analog input] Input_Port**

Singal used to set the command parameter,the singal range from 1 to 16.

1-Input port 1

2-Input port 2

3-Input port 3

4-Input port 4

.....

14-Input port 14

15-Input port 15

16-Input port 16

➤ **[Analog input] Output_Port**

Singal used to set the command parameter,the singal range from 0 to 16.

0-All output port

1-Output port 1

2-Output port 2

3-Output port 3

4-Output port 4

.....

14-Output port 14

15-Output port 15

16-Output port 16

➤ **[Digital input]AV_SwitchOver**

Signal used to switchover the connected device which according the Input port and Output_Port.

➤ **[Digital input]HDMI_Scaler_ByPass**

Signal used to set the connected device HDMI output scaler “bypass” mode according the Output_Port.

➤ **[Digital input]HDMI_Scaler_4K->1080P**

Signal used to set the connected device HDMI output scaler “4k->1080p” mode according the Output_Port.

➤ **[Digital input]HDMI_Scaler_Auto**

Signal used to set the connected device HDMI output scaler “auto” mode according the Output_Port.

➤ **[Digital input]HDMI_Arc_On**

Signal used to turn on the connected device HDMI output ARC according the Output_Port.

➤ **[Digital input]HDMI_Arc_Off**

Signal used to turn off the connected device HDMI output ARC according the Output_Port.

➤ **[Digital input]HDMI_Stream_Enable**

Signal used to turn on the connected device HDMI output stream according the Output_Port.

➤ **[Digital input]HDMI_Stream_Disable**

Signal used to turn off the connected device HDMI output stream according the Output_Port.

➤ **[Serial input]From_Matrix**

Signal used to receive character from the connected device.

Outputparameterdescription:

➤ **[Digital output]Rebooting_busy**

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

➤ **[Digital output]FB_PowerOn**

Signal used to indicate that the connected device is Powered On

➤ **[Digital output]FB_PowerOff**

Signal used to indicate that the connected device is Powered Off

➤ **[Digital output]FB_BeepOn**

Signal used to indicate that the connected device is Beeped On

- **[Digital output]FB_BeepOff**
Singal used to indicate that the connected device is Beeped Off
- **[Digital output]FB_PanelLockOn**
Singal used to indicate that the connected device is Panel Locked On.
- **[Digital output]FB_PanelLockOff**
Singal used to indicate that the connected device is Panel Locked Off.
- **[Analog output]FB_Input_Port**
Singal used to indicate that currentlly controlled input port of the connected device. The valid range of X is 1-16.
- **[Analog output]FB_Output_Port**
Singal used to indicate that the currently controlled output port of the connected device. The valid range of X is 0-16.
- **[Analog output] FB_HDMI_Output[X]_Signal_Status**
Singal used to indicate the connected device output port singal source The valid range of X is 1-16.

1-singal source is input port 1
2-singal source is input port 2
3-singal source is input port 3
4-singal source is input port 4
.....
14-singal source is input port 14
15-singal source is input port 15
16-singal source is input port 16
- **[Digital output]FB_HDMI_Output[X]_Scaler_ByPass**
Singal used to indicate the connected device output HDMI Scaler mode is ByPass.The valid range of X is 1-16.
- **[Digital output]FB_HDMI_Output[X]_Scaler_4K->1080P**
Singal used to indicate the connected device output HDMI Scaler mode is 4K->1080P.The valid range of X is 1-16.
- **[Digital output]FB_HDMI_Output[X]_Scaler_Auto**
Singal used to indicate the connected device output HDMI Scaler mode is Auto.The valid range of X is 1-16.
- **[Digital output]FB_HDMI_Output[X]_Arc_On**
Singal used to indicate the connected device output HDMI Arc Turn On.The valid range of

X is 1-16.

➤ **[Digital output]FB_HDMI_Output[X]_Arc_Off**

Singal used to indicate the connected device output HDMI Arc Turn off.The valid range of X is 1-16.

➤ **[Digital output]FB_HDMI_Output[X]_Stream_Enable**

Singal used to indicate the connected device output HDMI steam Enable.The valid range of X is 1-16.

➤ **[Digital output]FB_HDMI_Output[X]_Stream_Disable**

Singal used to indicate the connected device output HDMI steam Disable.The valid range of X is 1-16.

➤ **[Digital output]FB_HDMI_Input[X]_Connection_On**

Singal used to indicate the connected device input Connection On.The valid range of X is 1-16.

➤ **[Serial output]To_Matrix**

Singal used to send character command to the connected device.

Hdmi Matrix 16x16 Switch CN_AV 帮助文档

V1.1

概览

- 矩阵切换器模块适用于产品型号为MXB1616的矩阵。
- 如果你对这个帮助文档有任何问题，请联系我们。

模块名：Hdmi Matrix 16x16 Switch CN_AV

模块功能描述：

- 支持矩阵状态查询，包括电源，蜂鸣器，输入输出连接状态，矩阵切换状态，缩放模式，ARC开关状态，流开关状态。
- 支持设置矩阵开关电源，设置蜂鸣器开关，视频切换设置，ARC开关设置，缩放模式设置，流开关设置。

测试环境：

OPS USED FOR TESTING:	CP3N: v1.8000.4522.24170
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SYMBOL LIBRARY USED FOR TESTING:	104
SAMPLE PROGRAM:	3-Series: Example.smw

参数说明：

输入参数说明：

- **[Digital input]GetSystemStatus**
信号用于获取当前连接设备系统状态。
- **[Digital input]Reboot**
信号用于重启当前连接的设备。
- **[Digital input]PowerOn**
信号用于设置当前连接设备开机。

➤ **[Digital input]PowerOff**

信号用于设置当前连接设备关机。

➤ **[Digital input]BeepOn**

信号用于打开当前连接设备蜂鸣器。

➤ **[Digital input]BeepOff**

信号用于关闭当前连接设备蜂鸣器。

➤ **[Digital input]PanelLockOn**

信号用于锁住当前连接设备控制面板。

➤ **[Digital input]PanelLockOff**

信号用于将当前连接设备的控制面板锁打开。

➤ **[Analog input] Input_Port**

信号作为参数用于拼凑控制指令，有效范围为 1-16。

1-输入端口 1

2-输入端口 2

3-输入端口 3

4-输入端口 4

.....

14-输入端口 14

15-输入端口 15

16-输入端口 16

➤ **[Analog input] Output_Port**

信号作为参数用于拼凑控制指令，有效范围为 0-8。

0-所有输出端口

1-输出端口 1

2-输出端口 2

3-输出端口 3

4-输出端口 4

.....

14-输出端口 14

15-输出端口 15

16-输出端口 16

➤ **[Digital input]AV_SwitchOver**

信号用于触发根据 Input_Port 和 Output_Port 这两个参数组合的切换指令给已连接的矩阵。

- **[Digital input]HDMI_Scaler_ByPass**
信号用于根据输出端口号设置对应的 HDMI 输出的缩放模式为 Bypass。
- **[Digital input]HDMI_Scaler_4K->1080P**
信号用于根据输出端口号设置对应的 HDMI 输出的缩放模式为 **4K->1080P**。
- **[Digital input]HDMI_Scaler_Auto**
信号用于根据输出端口号设置对应的 HDMI 输出的缩放模式为 Auto。
- **[Digital input]HDMI_Arc_On**
信号用于根据输出端口号设置对应的 HDMI 输出 Arc 为打开状态。
- **[Digital input]HDMI_Arc_Off**
信号用于根据输出端口号设置对应的 HDMI 输出 Arc 为关闭状态。
- **[Digital input]HDMI_Stream_Enable**
信号用于根据输出端口号设置对应的 HDMI 输出 Stream 为使能状态。
- **[Digital input]HDMI_Stream_Disable**
信号用于根据输出端口号设置对应的 HDMI 输出 Stream 为无效状态。
- **[Serial input]From_Matrix**
信号用于接收已连接上的设备发送过来的字符串。

输出参数说明:

- **[Digital output]Rebooting_busy**
信号用于反馈当前已连接设备重启状态。当信号为 1 时设备正在重启，为 0 时重启完毕。
- **[Digital output]FB_PowerOn**
信号用于表明已连接设备开机状态。
- **[Digital output]FB_PowerOff**
信号用于表明已连接设备关机状态。
- **[Digital output]FB_BeepOn**
信号用于表明已连接设备蜂鸣器打开状态。
- **[Digital output]FB_BeepOff**
信号用于表明已连接设备蜂鸣器关闭状态。
- **[Digital output]FB_PanelLockOn**
信号用于表明已连接设备控制面板锁关闭状态。
- **[Digital output]FB_PanelLockOff**
信号用于表明已连接设备控制面板锁打开状态。
- **[Analog output]FB_Input_Port**
信号用于表明当前控制指令关联的输入端口。有效范围为 1-16。
- **[Analog output]FB_Output_Port**

信号用于表明当前控制指令关联的输出端口。有效范围为 0-16。

➤ **[Analog output] FB_HDMI_Output[X]_Signal_Status**

信号用于表明当前输出端口对应的输入信号端口号。输入信号端口号有效范围 1-16。

1-信号源是输入端口 1

2-信号源是输入端口 2

3-信号源是输入端口 3

4-信号源是输入端口 4

.....

14-信号源是输入端口 14

15-信号源是输入端口 15

16-信号源是输入端口 16

➤ **[Digital output]FB_HDMI_Output[X]_Scaler_ByPass**

信号用于表明当前 HDMI 输出端口缩放模式是 Bypass。输出端口号有效范围 1-16。

➤ **[Digital output]FB_HDMI_Output[X]_Scaler_4K->1080P**

信号用于表明当前 HDMI 输出端口缩放模式是 4K->1080P。输出端口号有效范围 1-16。

➤ **[Digital output]FB_HDMI_Output[X]_Scaler_Auto**

信号用于表明当前 HDMI 输出端口缩放模式是 Auto。输出端口号有效范围 1-16。

➤ **[Digital output]FB_HDMI_Output[X]_Arc_On**

信号用于表明当前 HDMI 输出端口 Arc 状态是打开。输出端口号有效范围 1-16。

➤ **[Digital output]FB_HDMI_Output[X]_Arc_Off**

信号用于表明当前 HDMI 输出端口 Arc 状态是关闭。输出端口号有效范围 1-16。

➤ **[Digital output]FB_HDMI_Output[X]_Stream_Enable**

信号用于表明当前 HDMI 输出端口 Stream 状态是使能。输出端口号有效范围 1-16。

➤ **[Digital output]FB_HDMI_Output[X]_Stream_Disable**

信号用于表明当前 HDMI 输出端口 Stream 状态是失效。输出端口号有效范围 1-16。

➤ **[Digital output]FB_HDMI_Input[X]_Connection_On**

信号用于表明当前 HDMI 输入端口硬件已连接状态。输入端口号有效范围 1-16。

➤ **[Digital output]FB_HDMI_Output[X]_Connection_On**

信号用于表明当前 HDMI 输出端口硬件已连接状态。输出端口号有效范围 1-16。

➤ **[Serial output]To_Matrix**

信号用于发送组合的命令字符串给已连接上的设备。