tvONE

API Document

1T-MV-8474

4K Multiviewer

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E&OE

Safety Precautions

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.

- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.

- Never spill liquid of any kind on or into this product.

- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.

- Do not attach the power supply cabling to building surfaces.

- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.

- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.

To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

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Introduction

The 1T- MV-8474 is a 4K Multiviewer designed for easy collaboration in huddle rooms, conference facilities, medical, education, government applications or control rooms – anywhere that single or multiple inputs are required, whatever the resolution, to be displayed on a single 4K screen. Control is quick and simple either using the front panel, a remote control or a fully featured web interface.

The 1T- MV-8474 supports native 4K inputs (resolutions up to 3840x2160@30 on HDMI and 3840x2160@60 via DisplayPort) together with up/down conversion, audio breakaway and selectable audio delay. Offering seven multi-format video inputs (4x HDMI, 2x DisplayPort, 1x VGA/YPbPr) the system can display up to four video windows simultaneously via sixteen different fixed layouts which can be simply recalled to present your content in a variety of combinations. The sixteen layouts include Quad split, Picture-In-Picture, Triple, Side-By-Side, Full screen and other, more complex, layouts with multiple layers. A single scaled HDMI output is capable of supporting resolutions up to 3840x2160@30. In addition, seven independent stereo analog inputs and outputs, allow you to switch audio separately from the HDMI stream and also integrate 7.1 audio with external equipment.

The on board web interface gives access from your PC to system setup, Full EDID management and audio control including delay and volume adjustments , making it easy to integrate the 1T-MV-8474 into complex systems. Control is via a Web interface, RS232, Ethernet, Infrared remote or from the front panel buttons.

The 1T-MV-8474 is an extremely flexible Multiviewer and a capable Presentation Switcher making it an excellent fit for many different user applications.
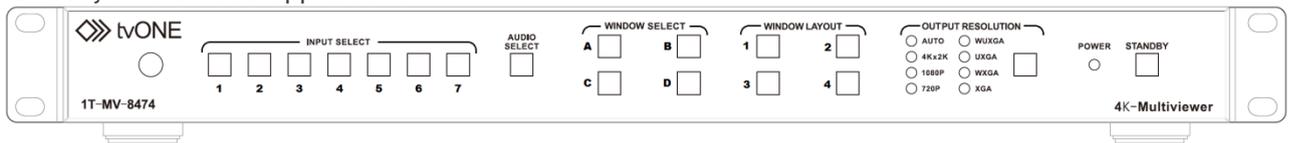
API Guide

This document outlines the application programming interface (API) required to integrate the 1T-MV-8474 with other third party control devices.

Software

Please use a third party control system or terminal emulator.

Series Command List API Descriptions

This RS-232 communication protocol uses four bytes of information as defined below. This protocol commands description is partial and additional command will be add later. RS-232 connection parameters between Matrix and controller are:

- Data rate is 9600 baud
- No parity bit
- 8 data bits
- 1 stop bit.

Note: This is a description about the series commands Command head: ATM

Length: <=255

Command: xxxxxxx

Read/Write: W/R

Parameter data : xx (N byte)
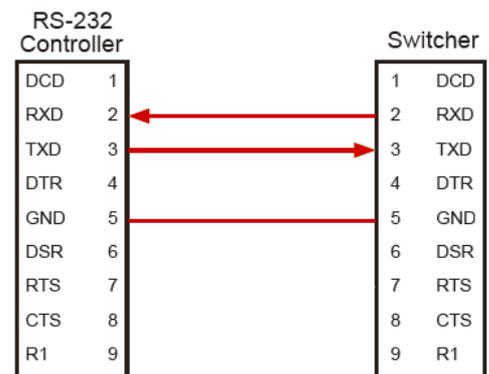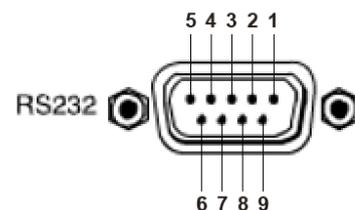
Connect to RXD, TXD, GND only

General Control

Window Layout Mapping:

Instruction: Switch to screen layout#1

Command:	ATM 0A TVO_LYT W *xx*	*xx range 01 – 16*
Feedback:	09 SCR_LYT W *y*	*y range 1-16*

Item	Command	Feedback	Description
Layout#1	ATM 0A TVO_LYT W 01	09 SCR_LYT W 1	Switch to window layout#1
Layout#2	ATM 0A TVO_LYT W 02	09 SCR_LYT W 2	Switch to window layout#2
Layout#3	ATM 0A TVO_LYT W 03	09 SCR_LYT W 3	Switch to window layout#3
Layout#4	ATM 0A TVO_LYT W 04	09 SCR_LYT W 4	Switch to window layout#4
Layout#5	ATM 0A TVO_LYT W 05	09 SCR_LYT W 5	Switch to window layout#5
Layout#6	ATM 0A TVO_LYT W 06	09 SCR_LYT W 6	Switch to window layout#6
Layout#7	ATM 0A TVO_LYT W 07	09 SCR_LYT W 7	Switch to window layout#7
Layout#8	ATM 0A TVO_LYT W 08	09 SCR_LYT W 8	Switch to window layout#8
Layout#9	ATM 0A TVO_LYT W 09	09 SCR_LYT W 9	Switch to window layout#9
Layout#10	ATM 0A TVO_LYT W 10	09 SCR_LYT W 10	Switch to window layout#10
Layout#11	ATM 0A TVO_LYT W 11	09 SCR_LYT W 11	Switch to window layout#11
Layout#12	ATM 0A TVO_LYT W 12	09 SCR_LYT W 12	Switch to window layout#12
Layout#13	ATM 0A TVO_LYT W 13	09 SCR_LYT W 13	Switch to window layout#13
Layout#14	ATM 0A TVO_LYT W 14	09 SCR_LYT W 14	Switch to window layout#14
Layout#15	ATM 0A TVO_LYT W 15	09 SCR_LYT W 15	Switch to window layout#15
Layout#16	ATM 0A TVO_LYT W 16	09 SCR_LYT W 16	Switch to window layout#16

Mapping Window Layout

Instruction: Map window layout buttons 1 to 4

Command:	ATM 0B TVO_MAP W *x yy*	*x = button 1 to 4*	*yy= layout 1 to 16*
Feedback:	0B TVO_MAP W *x yy*	*x = button 1 to 4*	*yy= layout 1 to 16*

Item	Command	Feedback	Description
Map to Screen layout Button 1	ATM 0B TVO_MAP W 1 XX	0B TVO_MAP W 1 XX	Change which layout XX ((01-16, total 16) is mapped to button #1
Map to Screen layout Button 2	ATM 0B TVO_MAP W 2 XX	0B TVO_MAP W 2 XX	Change which layout XX ((01-16, total 16) is mapped to button #2
Map to Screen layout Button 3	ATM 0B TVO_MAP W 3 XX	0B TVO_MAP W 3 XX	Change which layout XX ((01-16, total 16) is mapped to button #3
Map to Screen layout Button 4	ATM 0B TVO_MAP W 4 XX	0B TVO_MAP W 4 XX	Change which layout XX ((01-16, total 16) is mapped to button #4

Front panel Button Lockout

Instruction: Lock front panel

Command:		ATM 09 KEY_LOK W *x*	*x= 0: Unlock; 1: Admin lock (only resolution and stand button); 2: Complete lock (all front panel buttons)*

Instruction: Unlock front panel

Command:		ATM 08 KEY_LOK R	

Item	Command	Feedback	Description
Lock	ATM 09 KEY_LOK W X		X: 0: Unlock; 1: Admin lock (only resolution and stand button); 2: Complete lock (all front panel buttons)
Unlock	ATM 08 KEY_LOK R		Read the lock status

Video Set – Window A

Instruction: Map a video input (1 to 7) to a window select (A to D)

Command:	ATM 0A VDO_IPT W *x y*	*x = window A to D*	*y= video input 1 to 7*
Feedback:	0A VDO_IPT W *x y*	*x = window A to D*	*y= video input 1 to 7*

Item	Command	Feedback	Description
Select input #1	ATM 0A VDO_IPT W 1 1	0A VDO_IPT W 1 1	Video input of Window A is set to 1.
Select input #2	ATM 0A VDO_IPT W 1 2	0A VDO_IPT W 1 2	Video input of Window A is set to 2.
Select input #3	ATM 0A VDO_IPT W 1 3	0A VDO_IPT W 1 3	Video input of Window A is set to 3.
Select input #4	ATM 0A VDO_IPT W 1 4	0A VDO_IPT W 1 4	Video input of Window A is set to 4.
Select input #5	ATM 0A VDO_IPT W 1 5	0A VDO_IPT W 1 5	Video input of Window A is set to 5.
Select input #6	ATM 0A VDO_IPT W 1 6	0A VDO_IPT W 1 6	Video input of Window A is set to 6.
Select input #7	ATM 0A VDO_IPT W 1 7	0A VDO_IPT W 1 7	Video input of Window A is set to 7.

Video Set – Window B

See Instructions for Video Set – Window A for details.

Item	Command	Feedback	Description
Select input #1	ATM 0A VDO_IPT W 2 1	0A VDO_IPT W 2 1	Video input of Window B is set to 1.
Select input #2	ATM 0A VDO_IPT W 2 2	0A VDO_IPT W 2 2	Video input of Window B is set to 2.
Select input #3	ATM 0A VDO_IPT W 2 3	0A VDO_IPT W 2 3	Video input of Window B is set to 3.
Select input #4	ATM 0A VDO_IPT W 2 4	0A VDO_IPT W 2 4	Video input of Window B is set to 4.
Select input #5	ATM 0A VDO_IPT W 2 5	0A VDO_IPT W 2 5	Video input of Window B is set to 5.
Select input #6	ATM 0A VDO_IPT W 2 6	0A VDO_IPT W 2 6	Video input of Window B is set to 6.
Select input #7	ATM 0A VDO_IPT W 2 7	0A VDO_IPT W 2 7	Video input of Window B is set to 7.

Video Set – Window C

See Instructions for Video Set – Window A for details.

Item	Command	Feedback	Description
Select input #1	ATM 0A VDO_IPT W 3 1	0A VDO_IPT W 3 1	Video input of Window C is set to 1.
Select input #2	ATM 0A VDO_IPT W 3 2	0A VDO_IPT W 3 2	Video input of Window C is set to 2.
Select input #3	ATM 0A VDO_IPT W 3 3	0A VDO_IPT W 3 3	Video input of Window C is set to 3.
Select input #4	ATM 0A VDO_IPT W 3 4	0A VDO_IPT W 3 4	Video input of Window C is set to 4.
Select input #5	ATM 0A VDO_IPT W 3 5	0A VDO_IPT W 3 5	Video input of Window C is set to 5.
Select input #6	ATM 0A VDO_IPT W 3 6	0A VDO_IPT W 3 6	Video input of Window C is set to 6.
Select input #7	ATM 0A VDO_IPT W 3 7	0A VDO_IPT W 3 7	Video input of Window C is set to 7.

Video Set – Window D
See Instructions for Video Set – Window A for details.

Item	Command	Feedback	Description
Select input #1	ATM 0A VDO_IPT W 4 1	0A VDO_IPT W 4 1	Video input of Window D is set to 1.
Select input #2	ATM 0A VDO_IPT W 4 2	0A VDO_IPT W 4 2	Video input of Window D is set to 2.
Select input #3	ATM 0A VDO_IPT W 4 3	0A VDO_IPT W 4 3	Video input of Window D is set to 3.
Select input #4	ATM 0A VDO_IPT W 4 4	0A VDO_IPT W 4 4	Video input of Window D is set to 4.
Select input #5	ATM 0A VDO_IPT W 4 5	0A VDO_IPT W 4 5	Video input of Window D is set to 5.
Select input #6	ATM 0A VDO_IPT W 4 6	0A VDO_IPT W 4 6	Video input of Window D is set to 6.
Select input #7	ATM 0A VDO_IPT W 4 7	0A VDO_IPT W 4 7	Video input of Window D is set to 7.

Audio Set - Audio input select
Instruction: Audio output is set to audio input x (1 to 7)

Command:	ATM 09 ADO_IPT W *x*	*x = audio input 1 to 7*
Feedback:	ATM 09 ADO_IPT W *x*	*x = audio input 1 to 7*

Item	Command	Feedback	Description
Select input #1	ATM 09 ADO_IPT W 1	ATM 09 ADO_IPT W 1	Audio output is set to audio input 1
Select input #2	ATM 09 ADO_IPT W 2	ATM 09 ADO_IPT W 2	Audio output is set to audio input 2
Select input #3	ATM 09 ADO_IPT W 3	ATM 09 ADO_IPT W 3	Audio output is set to audio input 3
Select input #4	ATM 09 ADO_IPT W 4	ATM 09 ADO_IPT W 4	Audio output is set to audio input 4
Select input #5	ATM 09 ADO_IPT W 5	ATM 09 ADO_IPT W 5	Audio output is set to audio input 5
Select input #6	ATM 09 ADO_IPT W 6	ATM 09 ADO_IPT W 6	Audio output is set to audio input 6
Select input #7	ATM 09 ADO_IPT W 7	ATM 09 ADO_IPT W 7	Audio output is set to audio input 7

Audio Set - Audio input config
Instruction: Audio input configuration (1 to 7)

Command:	ATM 0A AUD_MOD W *x y*	*x = External audio Input number 1 to 6*	*y= 0 HDMI auto audio, 1 external audio*
Feedback:	0A AUD_MOD W *x y*	*x = External audio Input number 1 to 6*	*y= 0 HDMI auto audio, 1 external audio*

Item	Command	Feedback	Description
Select ext. audio on input #1	ATM 0A AUD_MOD W 1 1	0A AUD_MOD W 1 1	ATM 0A AUD_MOD W M N M: input number; N: 0/1, 0-HDMI auto audio, 1-external audio E.g. This item is "Set external audio on input No. 1"
Select ext. audio on input #2	ATM 0A AUD_MOD W 2 1	0A AUD_MOD W 2 1	Set external audio on input No. 2
Select ext. audio on input #3	ATM 0A AUD_MOD W 3 1	0A AUD_MOD W 3 1	Set external audio on input No. 3
Select ext. audio on input #4	ATM 0A AUD_MOD W 4 1	0A AUD_MOD W 4 1	Set external audio on input No. 4
Select ext. audio on input #5	ATM 0A AUD_MOD W 5 1	0A AUD_MOD W 5 1	Set external audio on input No. 5
Select ext. audio on input #6	ATM 0A AUD_MOD W 6 1	0A AUD_MOD W 6 1	Set external audio on input No. 6

Audio Set – Get Audio Input Config State

Instruction: Check audio input configuration set on input (1 to 6)

Command:	ATM 0A AUD_MOD R *x y*	*x = External audio Input number 1 to 6*	*y= 0 HDMI auto audio, 1 external audio*
Feedback:	Port*x* Audio: *y*	*x = External audio Input number 1 to 6*	*y= 0 (Auto), 1 (External)*

Item	Command	Feedback	Description
Check audio set on input #1	ATM 09 AUD_MOD R 1	Port1 Audio: 0 (Auto) / 1 (External)	ATM 09 AUD_MOD R M M: input number; N: 0/1, 0-HDMI auto audio, 1-external audio E.g. This item is "Check audio input configuration set on input No. 1"
Check audio set on input #2	ATM 09 AUD_MOD R 2	Port2 Audio: 0 (Auto) / 1 (External)	Check audio input configuration set on input No. 2
Check audio set on input #3	ATM 09 AUD_MOD R 3	Port3 Audio: 0 (Auto) / 1 (External)	Check audio input configuration set on input No. 3
Check audio set on input #4	ATM 09 AUD_MOD R 4	Port4 Audio: 0 (Auto) / 1 (External)	Check audio input configuration set on input No. 4
Check audio set on input #5	ATM 09 AUD_MOD R 5	Port5 Audio: 0 (Auto) / 1 (External)	Check audio input configuration set on input No. 5
Check audio set on input #6	ATM 09 AUD_MOD R 6	Port6 Audio: 0 (Auto) / 1 (External)	Check audio input configuration set on input No. 6

Audio Set – Audio volume control

Instruction: Set audio volume value (Mute, 1-10, increase and decrease by one increment)

Command:	ATM 09 VOL_CRL W *x*	*x = The volume level 0=Mute, 1 to 9, A=10, E= increase by one value, F= decrease by one value*
Feedback:	09 VOL_CRL W *x*	*x = The volume level 0=Mute, 1 to 9, A=10, E= increase by one value, F= decrease by one value*

Item	Command	Feedback	Description
Set audio Mute	ATM 09 VOL_CRL W 0	09 VOL_CRL W 0	Set the program audio to MUTE
Set audio volume value at "1"	ATM 09 VOL_CRL W 1	09 VOL_CRL W 1	Set program audio output volume value at 1
Set audio volume value at "2"	ATM 09 VOL_CRL W 2	09 VOL_CRL W 2	Set program audio output volume value at 2
Set audio volume value at "3"	ATM 09 VOL_CRL W 3	09 VOL_CRL W 3	Set program audio output volume value at 3
Set audio volume value at "4"	ATM 09 VOL_CRL W 4	09 VOL_CRL W 4	Set program audio output volume value at 4
Set audio volume value at "5"	ATM 09 VOL_CRL W 5	09 VOL_CRL W 5	Set program audio output volume value at 5
Set audio volume value at "6"	ATM 09 VOL_CRL W 6	09 VOL_CRL W 6	Set program audio output volume value at 6
Set audio volume value at "7"	ATM 09 VOL_CRL W 7	09 VOL_CRL W 7	Set program audio output volume value at 7
Set audio volume value at "8"	ATM 09 VOL_CRL W 8	09 VOL_CRL W 8	Set program audio output volume value at 8
Set audio volume value at "9"	ATM 09 VOL_CRL W 9	09 VOL_CRL W 9	Set progradm audio output volume value at 9
Set audio volume	ATM 09 VOL_CRL W A	09 VOL_CRL W A	Set program audio output volume

value at "10"			value at 10
Increase audio volume by one value	ATM 09 VOL_CRL W E	09 VOL_CRL W E	Increase program audio output by a increment of 1 value
Decrease audio volume by one value	ATM 09 VOL_CRL W F	09 VOL_CRL W F	Decrease program audio output by a increment of 1 value

Ratio Set – Windows Select A

Instruction: Set the Ratio in Windows (A to D)

Command:	ATM 0A WIN_RAT W *x y*	*x = Windows A (1), B (2), C (3), D (4)*	*y= 1 (Original aspect), 2 (Entire screen), 3 (16:9), 4 (4:3)*
Feedback:	0A WIN_RAT W *x y*	*x = Windows A (1), B (2), C (3), D (4)*	*y= 1 (Original aspect), 2 (Entire screen), 3 (16:9), 4 (4:3)*

Item	Command	Feedback	Description
Set viewer#1 input as "NORMAL" ratio	ATM 0A WIN_RAT W 1 1	0A WIN_RAT W 1 1	Set the picture in Window A(1) as the original aspect ratio
Set viewer#1 input as "FULL" ratio	ATM 0A WIN_RAT W 1 2	0A WIN_RAT W 1 2	Set the picture in Window A(1) to fill the entire window
Set viewer#1 input as "16:9" ratio	ATM 0A WIN_RAT W 1 3	0A WIN_RAT W 1 3	Set the picture in Window A(1) as the 16:9 aspect ratio
Set viewer#1 input as "4:3" ratio	ATM 0A WIN_RAT W 1 4	0A WIN_RAT W 1 4	Set the picture in Window A(1) as the 4:3 aspect ratio

Ratio Set – Windows Select B

See Instructions for Ratio Set – Window Select A for details.

Item	Command	Feedback	Description
Set viewer#2 input as "NORMAL" ratio	ATM 0A WIN_RAT W 2 1	0A WIN_RAT W 2 1	Set the picture in Window B(2) as the original aspect ratio
Set viewer#2 input as "FULL" ratio	ATM 0A WIN_RAT W 2 2	0A WIN_RAT W 2 2	Set the picture in Window B(2) to fill the entire window
Set viewer#2 input as "16:9" ratio	ATM 0A WIN_RAT W 2 3	0A WIN_RAT W 2 3	Set the picture in Window B(2) as the 16:9 aspect ratio
Set viewer#2 input as "4:3" ratio	ATM 0A WIN_RAT W 2 4	0A WIN_RAT W 2 4	Set the picture in Window B(2) as the 4:3 aspect ratio

Ratio Set – Windows Select C

See Instructions for Ratio Set – Window Select A for details.

Item	Command	Feedback	Description
Set viewer#3 input as "NORMAL" ratio	ATM 0A WIN_RAT W 3 1	0A WIN_RAT W 3 1	Set the picture in Window C(3) as the original aspect ratio
Set viewer#3 input as "FULL" ratio	ATM 0A WIN_RAT W 3 2	0A WIN_RAT W 3 2	Set the picture in Window C(3) to fill the entire window
Set viewer#3 input as "16:9" ratio	ATM 0A WIN_RAT W 3 3	0A WIN_RAT W 3 3	Set the picture in Window C(3) as the 16:9 aspect ratio
Set viewer#3 input as "4:3" ratio	ATM 0A WIN_RAT W 3 4	0A WIN_RAT W 3 4	Set the picture in Window C(3) as the 4:3 aspect ratio

Ratio Set – Windows Select D

See Instructions for [Ratio Set – Window Select A](#) for details.

Item	Command	Feedback	Description
Set viewer#4 input as "NORMAL" ratio	ATM 0A WIN_RAT W 4 1	0A WIN_RAT W 4 1	Set the picture in Window D(4) as the original aspect ratio
Set viewer#4 input as "FULL" ratio	ATM 0A WIN_RAT W 4 2	0A WIN_RAT W 4 2	Set the picture in Window D(4) to fill the entire window
Set viewer#4 input as "16:9" ratio	ATM 0A WIN_RAT W 4 3	0A WIN_RAT W 4 3	Set the picture in Window D(4) as the 16:9 aspect ratio
Set viewer#4 input as "4:3" ratio	ATM 0A WIN_RAT W 4 4	0A WIN_RAT W 4 4	Set the picture in Window D(4) as the 4:3 aspect ratio

Timing Set – Output Timing

Instruction: Set the output timings

Item	Command	Feedback	Description
Auto	ATM 09 OPT_TIM W 1	09 OPT_TIM W 1	Set the HDMI output as AUTO, outputting the resolutions based on the EDID information of the display device.
4Kx2K@30Hz UHD	ATM 09 OPT_TIM W 2	09 OPT_TIM W 2	Sets the HDMI output resolution as 4Kx2K@30Hz UHD
1920X1080@60Hz 1080P FHD	ATM 09 OPT_TIM W 3	09 OPT_TIM W 3	Sets the HDMI output resolution as 1920X1080@60Hz 1080P FHD
1280X720@60Hz 720P	ATM 09 OPT_TIM W 4	09 OPT_TIM W 4	Sets the HDMI output resolution as 1280X720@60Hz 720P
1920X1200@60Hz WUXGA	ATM 09 OPT_TIM W 5	09 OPT_TIM W 5	Sets the HDMI output resolution as 1920X1200@60Hz WUXGA
1600X1200@60Hz UXGA	ATM 09 OPT_TIM W 6	09 OPT_TIM W 6	Sets the HDMI output resolution as 1600X1200@60Hz UXGA
1280X800@60Hz WXGA	ATM 09 OPT_TIM W 7	09 OPT_TIM W 7	Sets the HDMI output resolution as 1280X800@60Hz WXGA
1024X768@60Hz XGA	ATM 09 OPT_TIM W 8	09 OPT_TIM W 8	Sets the HDMI output resolution as 1024X768@60Hz XGA

Advanced Control

Power Control

Instruction: Power the unit to wake up or standby mode

Command:	ATM 09 POW_CRL W *x*	*x = 0 (to go from power off to power on), or F (to go from power on to standby).*
Feedback:	09 POW_CRL W *x*	*x = 0 (to go from power off to power on), or F (to go from power on to standby).*

Item	Command	Feedback	Description
Set unit to be waked up	ATM 09 POW_CRL W 0	09 POW_CRL W 0	When it's Power Off, set the device to power on. （please note it's hex "0", not letter "O"）
Set unit to power- saving standby	ATM 09 POW_CRL W F	09 POW_CRL W F	When it's Power On, set the device to stand by .

Power Saving

Instruction: Setting Power Saving mode

Command:	ATM 0A POW_SAV W *xx*	*xx = 00 (Disable), 05 (5 Mins), 0A (10 mins), 0F (15 mins), 1E (30 mins), 3C (60 mins)*
Feedback:	0A POW_SAV W *xx*	*xx = 00 (Disable), 05 (5 Mins), 0A (10 mins), 0F (15 mins), 1E (30 mins), 3C (60 mins)*

Item	Command	Feedback	Description
Set duration time before "power- saving" as 0m	ATM 0A POW_SAV W 00	0A POW_SAV W 00	Set Power Saving disable
Set duration time before "power- saving" as 5m	ATM 0A POW_SAV W 05	0A POW_SAV W 05	Set the duration time before automatically go into Power Saving status as 5 minutes.
Set duration time before "power- saving" as 10m	ATM 0A POW_SAV W 0A	0A POW_SAV W 0A	Set the duration time before automatically go into Power Saving status as 10 minutes.
Set duration time before "power- saving" as 15m	ATM 0A POW_SAV W 0F	0A POW_SAV W 0F	Set the duration time before automatically go into Power Saving status as 15 minutes.
Set duration time before "power- saving" as 30m	ATM 0A POW_SAV W 1E	0A POW_SAV W 1E	Set the duration time before automatically go into Power Saving status as 30 minutes.
Set duration time before "power- saving" as 60m	ATM 0A POW_SAV W 3C	0A POW_SAV W 3C	Set the duration time before automatically go into Power Saving status as 60 minutes.

Audio Mute

Item	Command	Feedback	Description
Set audio mute "ON"	ATM 09 AUD_MUT W 0	09 AUD_MUT W 0	Set the audio output as mute
Set audio mute "OFF"	ATM 09 AUD_MUT W F	09 AUD_MUT W F	Cancel the mute setting for the audio output

Audio Delay

Instruction: Setting Power Saving mode

Command:	ATM 09 AUD_DLY W *x*	*x = 0 (Off), 1 (40ms), 2 (80ms), 3 (120ms), 4 (160ms), 5 (200ms), 6 (240ms), 7 (300ms), 8 (340ms), 9 (380ms), A (400ms).*
Feedback:	09 AUD_DLY W *x*	*x = 0 (Off), 1 (40ms), 2 (80ms), 3 (120ms), 4 (160ms), 5 (200ms), 6 (240ms), 7 (300ms), 8 (340ms), 9 (380ms), A (400ms).*

Item	Command	Feedback	Description
Set audio delay time as 0ms	ATM 09 AUD_DLY W 0	09 AUD_DLY W 0	Set the time-delay of audio output as Off.
Set audio delay time as 40ms	ATM 09 AUD_DLY W 1	09 AUD_DLY W 1	Set the time-delay of audio output as 1 step (40ms)
Set audio delay time as 80ms	ATM 09 AUD_DLY W 2	09 AUD_DLY W 2	Set the time-delay of audio output as 2 step (80ms)
Set audio delay time as 120ms	ATM 09 AUD_DLY W 3	09 AUD_DLY W 3	Set the time-delay of audio output as 3 step (120ms)
Set audio delay time as 160ms	ATM 09 AUD_DLY W 4	09 AUD_DLY W 4	Set the time-delay of audio output as 4 step (160ms)
Set audio delay time as 200ms	ATM 09 AUD_DLY W 5	09 AUD_DLY W 5	Set the time-delay of audio output as 5 step (200ms)
Set audio delay time as 240ms	ATM 09 AUD_DLY W 6	09 AUD_DLY W 6	Set the time-delay of audio output as 6 step (240ms)
Set audio delay time as 280ms	ATM 09 AUD_DLY W 7	09 AUD_DLY W 7	Set the time-delay of audio output as 7 step (300ms)
Set audio delay time as 320ms	ATM 09 AUD_DLY W 8	09 AUD_DLY W 8	Set the time-delay of audio output as 8 step (340ms)
Set audio delay time as 360ms	ATM 09 AUD_DLY W 9	09 AUD_DLY W 9	Set the time-delay of audio output as 9 step (380ms)
Set audio delay time as 400ms	ATM 09 AUD_DLY W A	09 AUD_DLY W A	Set the time-delay of audio output as 10 step (400ms)

VGA input Auto Position

Item	Command	Feedback	Description
AUTO-adjust on VGA input	ATM 08 VGA_AUT W	08 VGA_AUT W	When it's VGA, it adjusts image position automatically.

OSD control

Item	Command	Feedback	Description
Audio OSD on/off	ATM 09 AUD_OSD W 0	09 AUD_OSD W 0	Turn on/off the audio volume and mute OSD. 0: audio OSD on; 1: audio OSD off
Video OSD on/off	ATM 09 VDO_OSD W 0	09 VDO_OSD W 0	Turn on/off the video source and IP address OSD. 0: video OSD on, 1: video OSD off

HDMI output audio control

Item	Command	Feedback	Description
HDMI Output audio Mute / Unmute	ATM 09 AUD_OPT W 1	09 AUD_OPT W 1	Mute/Unmute HDMI embedded audio. 0: Mute, 1: Unmute

Restore Default Setting

Item	Command	Feedback	Description
Restore unit to default factory set	ATM 08 RST_SET W	08 RST_SET W	Reset to factory default settings.

Set Baud Rate:

Item	Command	Feedback	Description
9600	ATM 09 BAU_RAT W 1	09 BAU_RAT W 1	Set the window baud rate as 9600
14400	ATM 09 BAU_RAT W 2	09 BAU_RAT W 2	Set the window baud rate as 14400
19200	ATM 09 BAU_RAT W 3	09 BAU_RAT W 3	Set the window baud rate as 19200
38400	ATM 09 BAU_RAT W 4	09 BAU_RAT W 4	Set the window baud rate as 38400
56000	ATM 09 BAU_RAT W 5	09 BAU_RAT W 5	Set the window baud rate as 56000
57600	ATM 09 BAU_RAT W 6	09 BAU_RAT W 6	Set the window baud rate as 57600
115200	ATM 09 BAU_RAT W 7	09 BAU_RAT W 7	Set the window baud rate as 115200

HDCP

Item	Command	Feedback	Description
Enable HDCP on HDMI output	ATM 0A HDO_HDP W 1 0	0A HDO_HDP W 1 0	Enable the HDCP "Switch-ON" on the HDMI output port
Disable HDCP on HDMI output	ATM 0A HDO_HDP W 1 F	0A HDO_HDP W 1 F	Disable the HDCP "Switch-ON" on the HDMI output port
Check HDCP status on HDMI output	ATM 08 HDO_HDP R	08 HDO_HDP R	Read/Check the HDCP switch status on the HDMI output port

Set priority EDID when Auto-scaler and mirror output

Item	Command	Feedback	Description
Set HDMI output as priority EDID	ATM 09 HDO_EDI W 1	09 HDO_EDI W 1	When Auto-scaler output and mirror HDMI output, set HDMI output as the priority EDID for optimized resolution output

Other

Item	Command	Feedback	Description
Get SW Version:	ATM 08 CSW_VER W	08 CSW_VER W	Read/Check the software version
Enable input HDCP KEY	ATM 09 IPT_DCP W 1	09 IPT_DCP W 1	Enable the HDMI input HDCP "Switch- ON"
Set input HDMI/DP embedded audio to "MUTE"	ATM 09 AUD_OPT W 1	09 AUD_OPT W 1	Set the HDMI/DP embedded audio to "MUTE"
Activate system update by USB disk	ATM 09 SYS_UPT W 1	09 SYS_UPT W 1	Start the upgrading progress through USB connected with upgrading file stored inside

Source Remove *

Item	Command	Feedback	Description
Remove a source from a window:	ATM 0C WIN_REM W X Y Z	0C WIN_REM W X Y Z	Remove a source from a window on a specific layout. X: 01-16, Layout select Y: 1-4, window select Z: 0-1, source on/off - 0: Source remove OFF - (window source on) 1: Source remove ON - (window source off)

*Note: This feature is only available in firmware versions 3.0.1.1 CL1051 and above.

Item	Command	Feedback	Description
Remove a source from a window:	ATM 0C WIN_REM W X Y Z	0C WIN_REM W X Y Z	Remove a source from a

Audio Configuration:

Audio Config set:

Set the input audio port to be auto HDMI audio or external analog audio

Send： ATM 0A AUD_MOD W M N

     M: 1, 2, 3, 4, 5, 6, (input audio No. 1-6)

     N: 0, 1 (0: Auto; 1: External)

Feedback: 0A AUD_MOD W M N

Read Audio Input Conifg State:

Read the audio input configuration of each input audio channel

     Send： ATM 09 AUD_MOD R M

     M: 1, 2, 3, 4, 5, 6 (input audio No.1-6)

Feedback：   Port2 Audio: 0 (Auto)

                Port2 Audio: 1 (External)

Basis EDID Management

The EDID management including two level methods, Basic EDID Management and Advance EDID Management.

Basic EDID management:

Inner EDID procedure schematic diagram :

Preset EDID

1. 4K x 2K @30Hz 8Channel
2. 4K x 2K @30Hz 2Channel
3. 1080P 8Channel
4. 1080P 2Channel
5. VGA
6. 4K x 2K @60Hz (For DP)

INPUT

HDMI 1
HDMI 2
HDMI 3
HDMI 4
DP 5
DP 6
VGA

User Define EDID

1. User Define EDID
2. User Define EDID
3. User Define EDID
4. User Define EDID
5. User Define EDID
6. User Define EDID
7. User Define EDID

RAM Temp

OUTPUT

HDMI

UART/IP
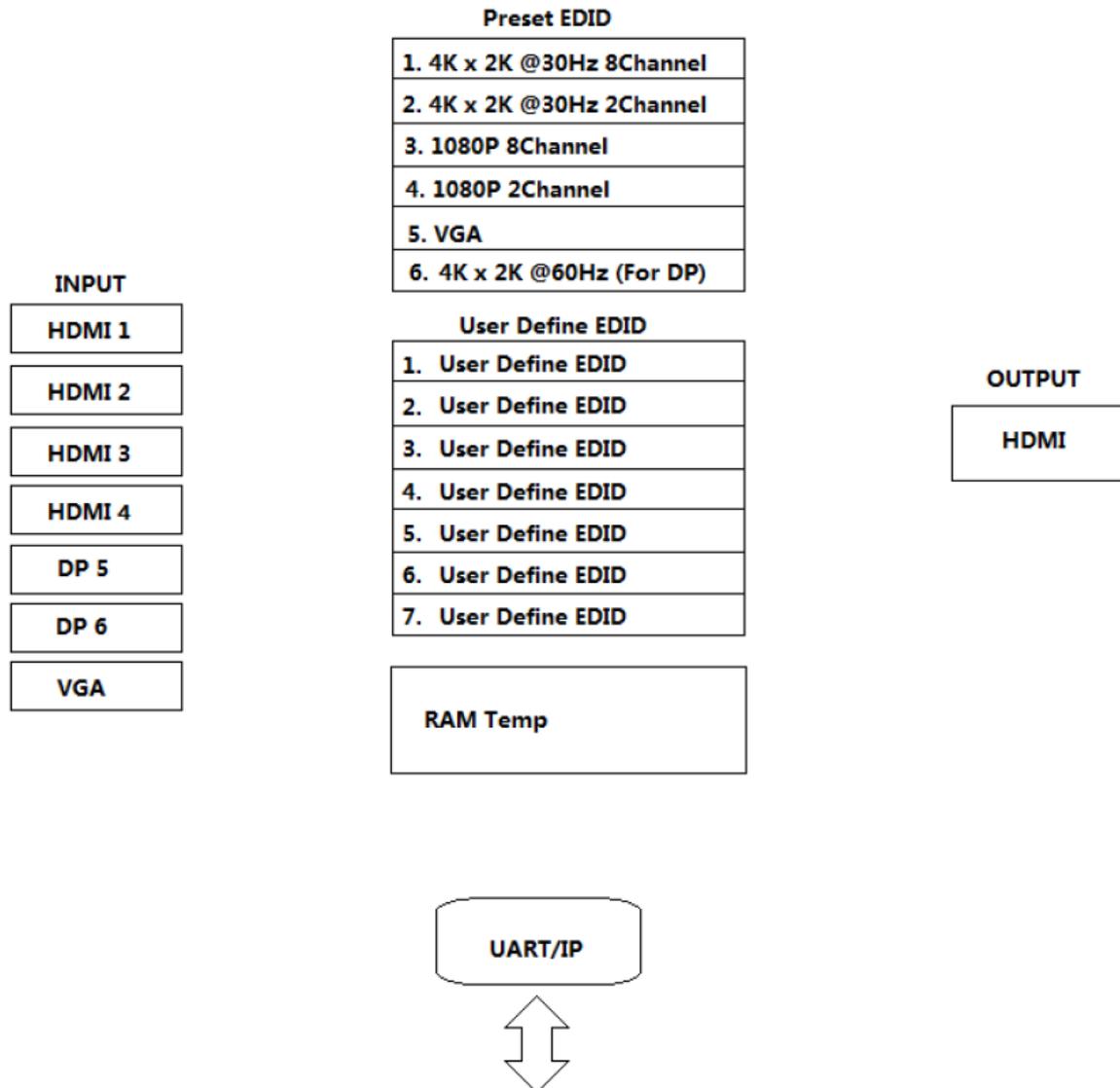
Copy the EDID of output to assign it to the EDID of input:

Send：ATM 09 EDI_CPY N M

    N：1, 2 (output No. 1-2)

    M： 1, 2, 3, 4, 5, 6, 7 (input No. 1-7)

Feedback：09 EDI_CPY N M

Example: Copy the output port No.1, of which EDID from connected display device to assign to the input port No. 1

Send ：**ATM 09 EDI_CPY 1 1**

Feedback ：**09 EDI_CPY 1 1**

Preset EDID

| 1. 4K x 2K @30Hz 8Channel |
| 2. 4K x 2K @30Hz 2Channel |
| 3. 1080P 8Channel |
| 4. 1080P 2Channel |
| 5. VGA |
| 6. 4K x 2K @60Hz (For DP) |

INPUT

| HDMI 1 |
| HDMI 2 |
| HDMI 3 |
| HDMI 4 |
| DP 5 |
| DP 6 |
| VGA |

User Define EDID

| 1. User Define EDID |
| 2. User Define EDID |
| 3. User Define EDID |
| 4. User Define EDID |
| 5. User Define EDID |
| 6. User Define EDID |
| 7. User Define EDID |

RAM Temp

OUTPUT

HDMI

EDI_CPY

UART/IP
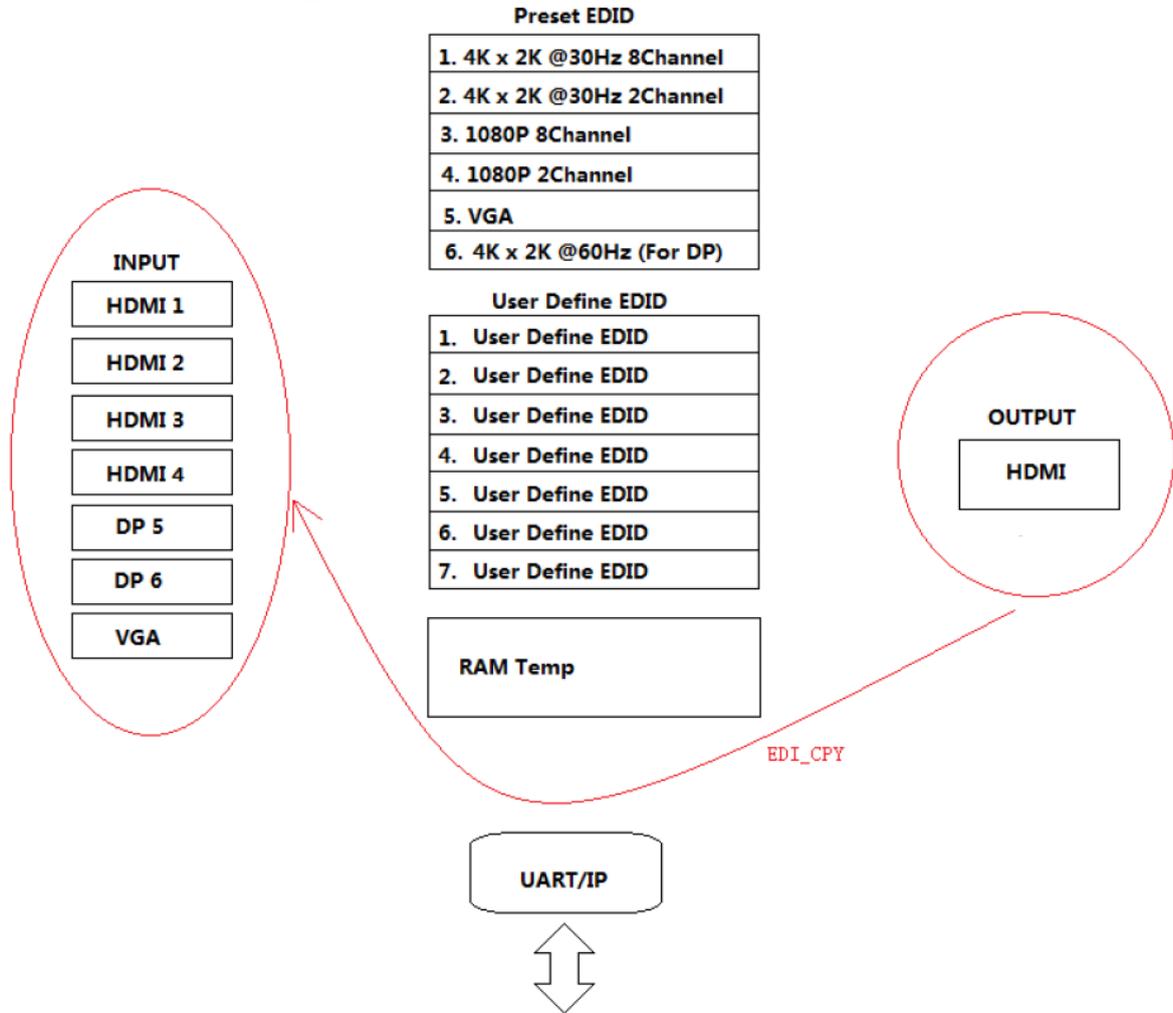
Read the EDID data：

    Send： ATM 09 EDI_POR R M

      M：1, 2, 3, 4, 5, 6, 7 (input No. 1-7)

    Feedback：(receive the EDID data as below)

   00 FF FF FF FF FF FF 00 1E 74 01 00 01 00 00 00 01 18 01 03 80 79 44 78 0A EE 91 A3 54 4C 99 26 0F 50 54 BD EF 80 71 4F 81 C0 81 00 81 80 95 00 A9 C0 B3 00 01 01 04 74 00 30 F2 70 5A 80 B0 58 8A 00 50 1D 74 00 00 1E 02 3A 80 18 71 38 2D 40 58 2C 45 00 50 1D 74 00 00 1E 00 00 00 FD 00 18 4B 0F 87 3C 00 0A 20 20 20 20 20 20 00 00 00 FC 00 4D 53 30 37 30 31 0A 20 20 20 20 20 20 01 AE 02 03 3A F1 57 61 10 1F 04 13 05 14 20 21 22 5D 5E 5F 60 65 66 62 63 64 07 16 03 12 23 0F 5F 07 E2 00 0F 76 03 0C 00 10 00 B8 78 20 00 80 01 02 03 04 00 00 00 00 00 00 00 00 02 3A 80 18 71 38 2D 40 58 2C 45 00 50 1D 74 00 00 1F 66 21 56 AA 51 00 1E 30 46 8F 33 00 50 1D 74 00 00 1F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 DD

Preset EDID

1. 4K x 2K @30Hz 8Channel	
2. 4K x 2K @30Hz 2Channel	
3. 1080P 8Channel	
4. 1080P 2Channel	
5. VGA	
6. 4K x 2K @60Hz (For DP)	

INPUT

HDMI 1
HDMI 2
HDMI 3
HDMI 4
DP 5
DP 6
VGA

User Define EDID

1. User Define EDID	
2. User Define EDID	
3. User Define EDID	
4. User Define EDID	
5. User Define EDID	
6. User Define EDID	
7. User Define EDID	

RAM Temp

OUTPUT

HDMI

EDI_POR

UART/IP
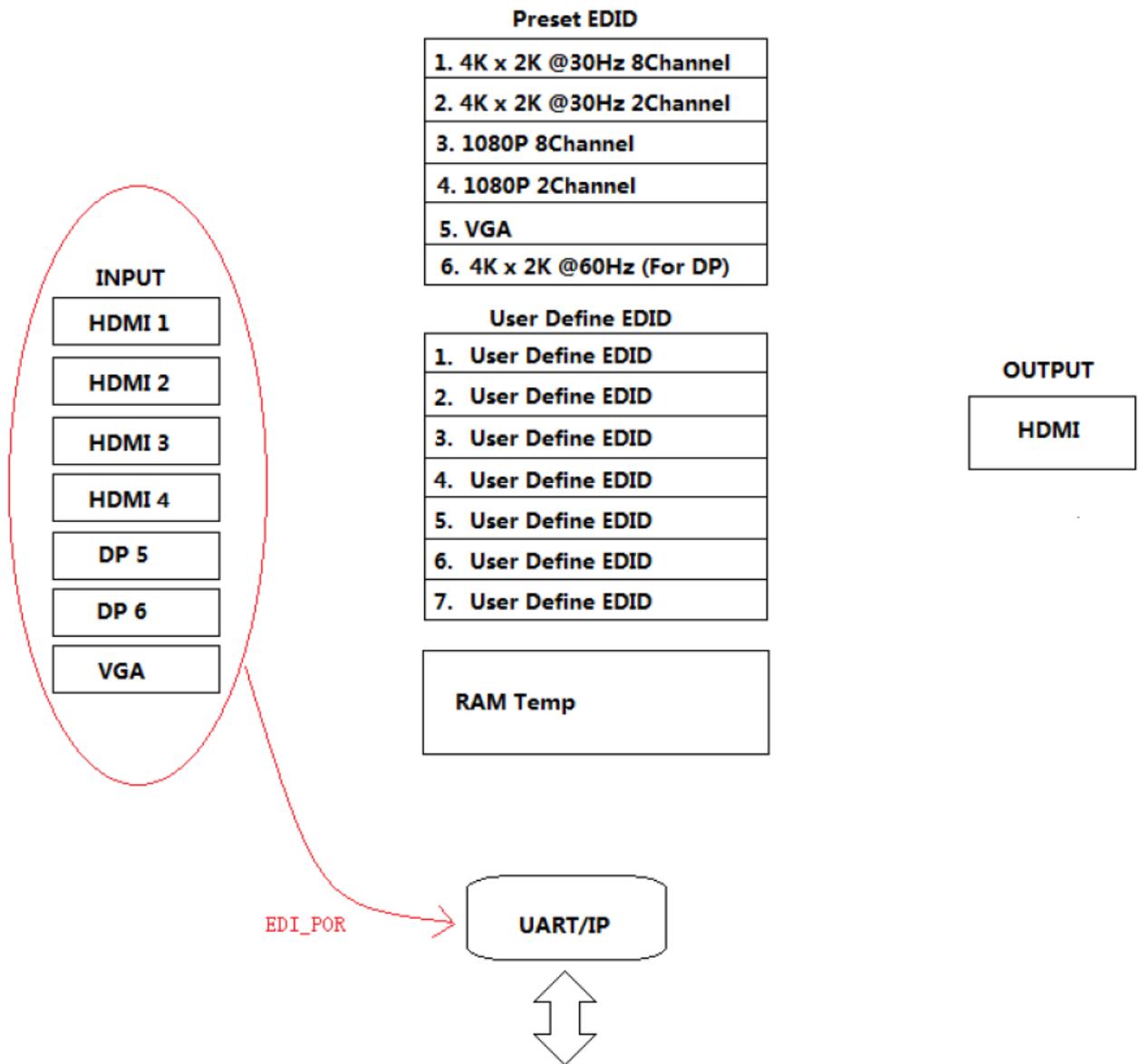
Assign the inner EDID to appointed port：
    Inner EDID consists of two parts, Preset EDID and User Define EDID

Assign preset EDID to certain port：

Send ： ATM 0B EDI_POR W M C N
        M:1, 2, 3, 4, 5, 6, 7 (input No. 1-7)
        N: 1, 2, 3, 4, 5, 6 (Inner preset EDID value No. 1-6)

Preset EDID

| |
|---|
| 1. 4K x 2K @30Hz 8Channel |
| 2. 4K x 2K @30Hz 2Channel |
| 3. 1080P 8Channel |
| 4. 1080P 2Channel |
| 5. VGA |
| 6. 4K x 2K @60Hz (For DP) |

Feedback ： 0B EDI_POR W M C N

Assign user define EDID to certain input port:

Send： ATM 0B EDI_POR W M E N

M: 1, 2, 3, 4, 5, 6, 7 (input port No. 1-7)
N: 1, 2, 3, 4, 5, 6, 7 (uploaded user define EDID No.1-7)

Feedback： 0B EDI_POR W M E N

User Define EDID

1.	User Define EDID
2.	User Define EDID
3.	User Define EDID
4.	User Define EDID
5.	User Define EDID
6.	User Define EDID
7.	User Define EDID

Preset EDID

1. 4K x 2K @30Hz 8Channel
2. 4K x 2K @30Hz 2Channel
3. 1080P 8Channel
4. 1080P 2Channel
5. VGA
6. 4K x 2K @60Hz (For DP)

ATM 0B EDI_POR W m C n

INPUT

HDMI 1
HDMI 2
HDMI 3
HDMI 4
DP 5
DP 6
VGA

User Define EDID

1.	User Define EDID
2.	User Define EDID
3.	User Define EDID
4.	User Define EDID
5.	User Define EDID
6.	User Define EDID
7.	User Define EDID

ATM 0B EDI_POR W n E n

OUTPUT

HDMI

RAM Temp

UART/IP

To upload EDID by RS232, LAN：
1. Upload EDID to TEMP RAM
2. Copy TEMP RAM EDID to the user define EDID
3. Assign user define EDID to the input

The whole EDID upload process procedure diagram is as below:

Preset EDID

1. 4K x 2K @30Hz 8Channel
2. 4K x 2K @30Hz 2Channel
3. 1080P 8Channel
4. 1080P 2Channel
5. VGA
6. 4K x 2K @60Hz (For DP)

INPUT

HDMI 1
HDMI 2
HDMI 3
HDMI 4
DP 5
DP 6
VGA

User Define EDID

1. User Define EDID
2. User Define EDID
3. User Define EDID
4. User Define EDID
5. User Define EDID
6. User Define EDID
7. User Define EDID

OUTPUT

HDMI

RAM Temp

UART/IP
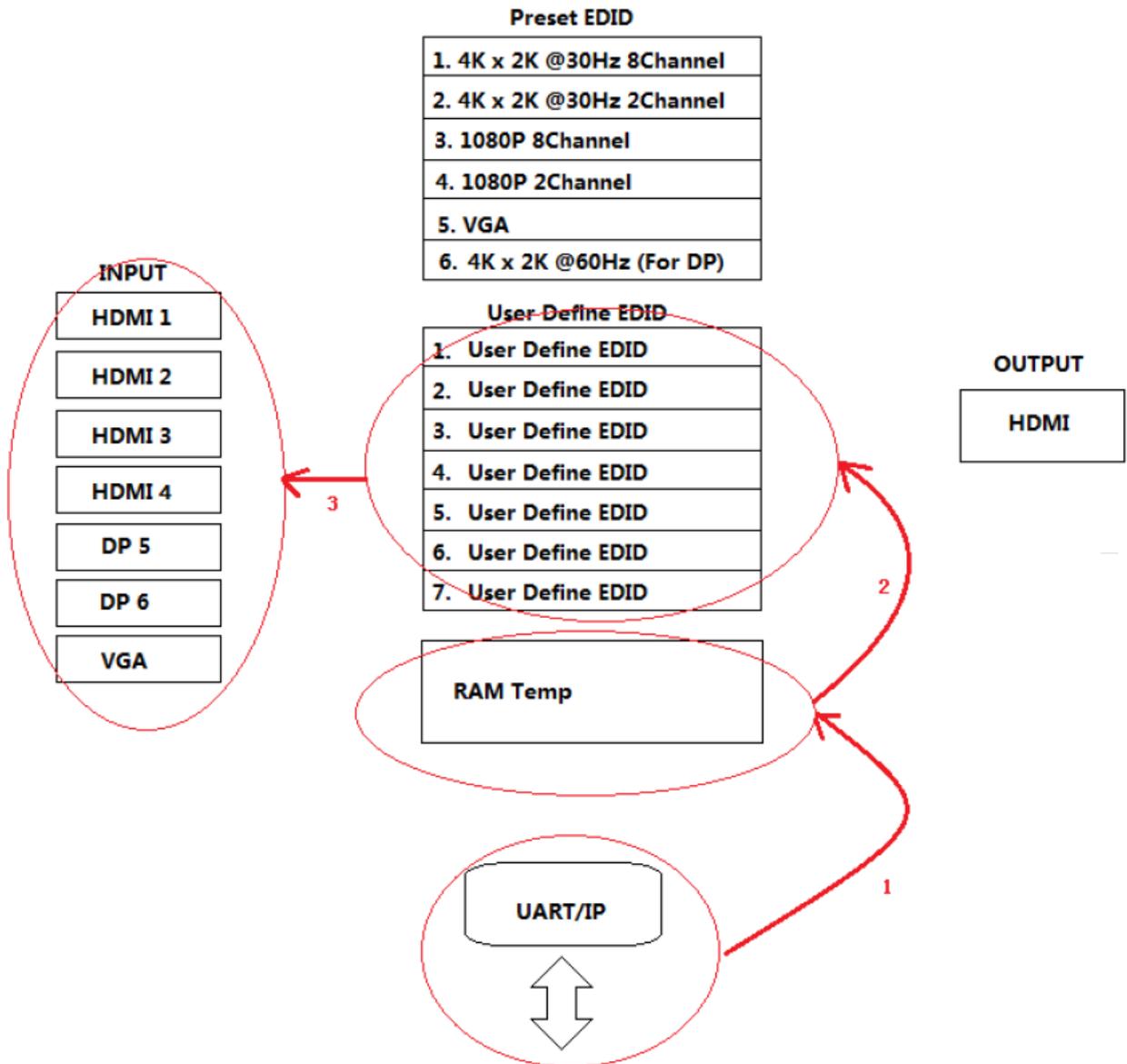
1. Upload EDID to TEMP RAM

After Step 1 upload, Feedback: EDID 256B

2. Copy TEMP RAM EDID to the user define EDID。
   Send：ATM 09 EDI_EEP W M
          M: 1,2,3,4,5,6,7 (uploaded user define EDID No.1-7)
   Feedback： 09 EDI_EEP W M
Notice：Please don't click the "send as hex", as below

Advanced EDID management

1T-MV-8474's advanced EDID management contains EDID assign, EDID upload and Download and EDID commands for managing the EDID from the seven input ports.
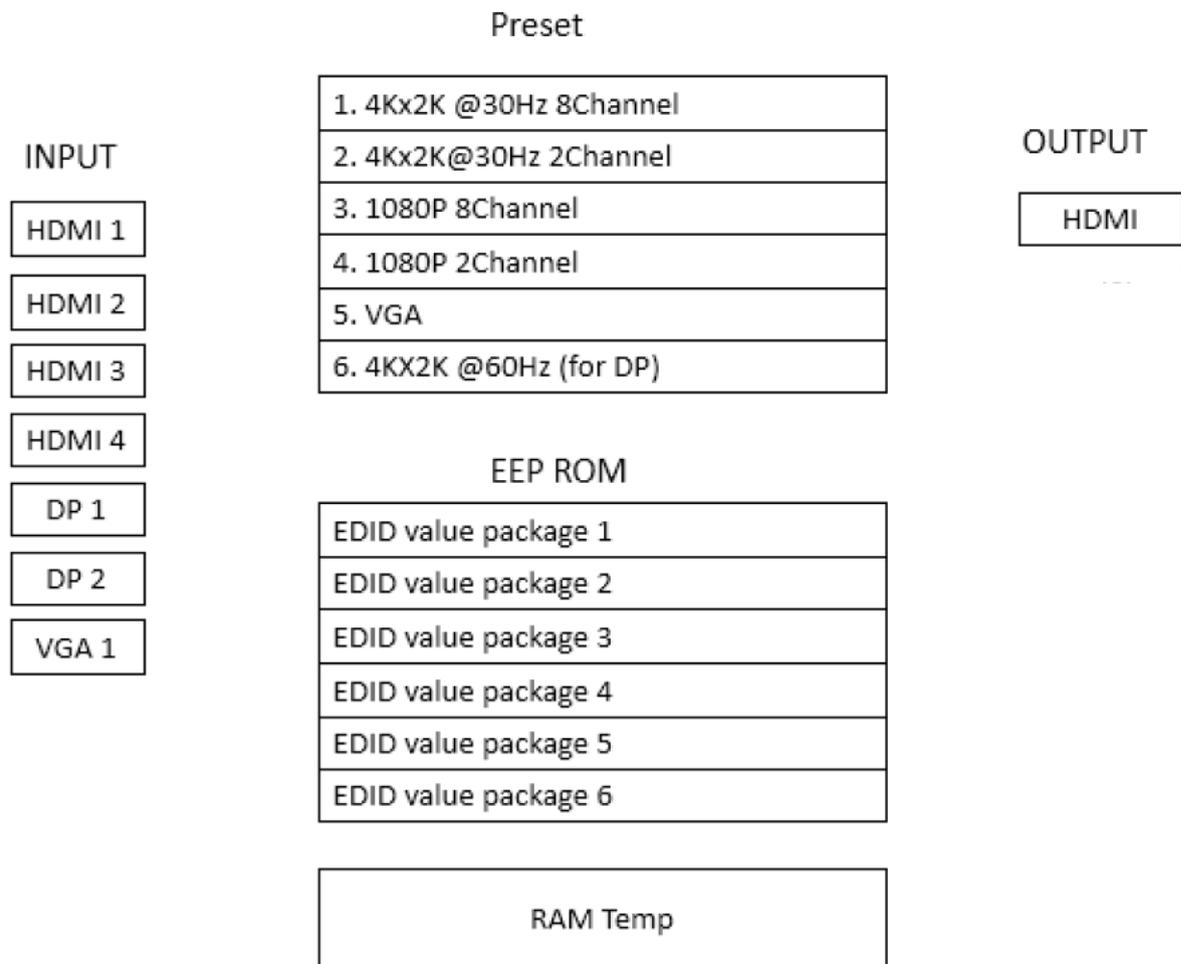
EDID Assign

1T-MV-8474 has built in six groups of fixed EDID and seven groups of user-defined EDID. These groups of EDID can be assigned to each input port.

The current six groups of embedded EDID
- 4K_8CH
- 4K_2CH
- 1080P_2CH
- 1080P_8CH
- VGA
- 4K@60Hz (for DP)

Therefore, the data for assigning EDID has two groups of commands:

1. Copy Built-in EDID to Port M: ATM 0B EDI_POR W M C N
   Copy the preset EDID N data in the program to the port M.

2. Copy EEPROM EDID to Port M: ATM 0B EDI_POR W M E N
   Copy the EDID data of the EEPROM N to the port M.

For example:
       Send：**ATM 0B EDI_POR W 1 C 1**
       Feedback：**0B EDI_POR W 1 C 1**
       Send：**ATM 0B EDI_POR W 2 E 2**
       Feedback：**0B EDI_POR W 2 E 2**

EDID upload and Download

There is only one method for EDID uploading. The steps are shown as follows.

1. Send the 256 or 128 bytes of EDID data in hexadecimal format to MS741 via the serial or LAN ports, MS741 checks the data based on the format of EDID after receiving the data, and it responds EDID_256 or EDID_128 if no errors.

2. Send the following command to store the received EDID data in the EEPROM.
   Write EDID (EEPROM)：ATM 09 EDI_EEP W n
   For example:
   > Send：**ATM 09 EDI_EEP W 1**
   > Feedback：**09 EDI_EEP W 1**

3. Copy the EDID data to the related ports via the EDID assigning method.
   There are two methods to download the EDID data. One is to read the EDID data from the seven groups of data in the EEPROM. The other is to directly read the EDID data from the ports.

1. Read from the seven groups of data in the EEPROM.
   > Read EDID(EEPROM)： ATM 09 EDI_EEP R n
   For example:
   > Send：**ATM 09 EDI_EEP R 1**
   > Feedback：**09 EDI_EEP R 1**

2. Read the EDID data from the seven ports
   > Read EDID from Port： ATM 09 EDI_POR R m
   For example:
   > Send：**ATM 09 EDI_POR R 1**
   > Feedback：**09 EDI_POR R 1**

256 bytes of EDID data will be sent back to the controller via RS232 or LAN ports.

EDID Names

There is a management method for EDID names. You can name the uploaded seven groups of EDID data in the EERPOM. They are EDID names write and read.

1. EDID Names Write
   Write EDID name (EEPROM): ATM 13 EDI_NAE W n XXXXXXXXXX
   Interior EDID n names write, the maximum length is 10 bytes. (If the names are less than 10 bytes, use the spaces). The characters include 'A'～'Z', 'a'～'z', '0'～'9','_', '-'。
   For example:
   > Send：**ATM 13 EDI_NAE W 1 4K_8CH---1**
   > Feedback：**13 EDI_NAE W 1 4K_8CH---1**

2. EDID Names Read
   Read EDID Name (EEPROM)：ATM 09 EDI_NAE R n
   Interior EDID n names read
   For example:
   > Send：**ATM 09 EDI_NAE R 1**
   > Feedback：**4K_8CH---1**

EDID commands list

Preset

INPUT	

INPUT
- HDMI 1
- HDMI 2
- HDMI 3
- HDMI 4
- DP 1
- DP 2
- VGA 1

Preset
1. 4Kx2K @30Hz 8Channel
2. 4Kx2K@30Hz 2Channel
3. 1080P 8Channel
4. 1080P 2Channel
5. VGA
6. 4KX2K @60Hz (for DP)

OUTPUT
- HDMI

EEP ROM
EDID value package 1
EDID value package 2
EDID value package 3
EDID value package 4
EDID value package 5
EDID value package 6

RAM Temp
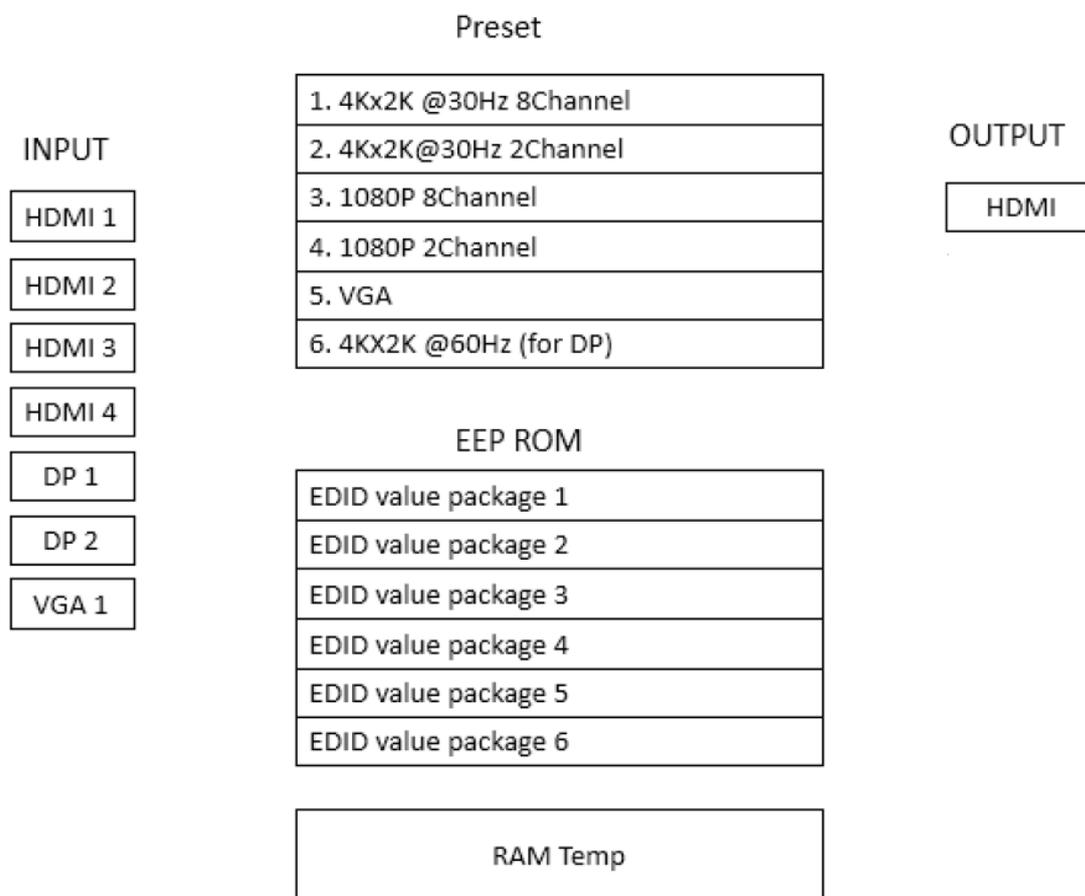
Write EDID Name (EEPROM)

Instruction: Write Interior EDID (*1-7*) name

Command:	ATM 13 EDI_NAE W *x* 4K2K_8CH_*x*	*x = 1 – 7 (Interior EDID)*
Feedback:	13 EDI_NAE W *x* 4K2K_8CH_*x*	*x = 1 – 7 (Interior EDID)*

Item	Command	Feedback	Description
1	ATM 13 EDI_NAE W 1 4K2K_8CH_1	13 EDI_NAE W 1 4K2K_8CH_1	Interior EDID 1 name write
2	ATM 13 EDI_NAE W 2 4K2K_8CH_2	13 EDI_NAE W 2 4K2K_8CH_2	Interior EDID 2 name write
3	ATM 13 EDI_NAE W 3 4K2K_8CH_3	13 EDI_NAE W 3 4K2K_8CH_3	Interior EDID 3 name write
4	ATM 13 EDI_NAE W 4 4K2K_8CH_4	13 EDI_NAE W 4 4K2K_8CH_4	Interior EDID 4 name write
5	ATM 13 EDI_NAE W 5 4K2K_8CH_5	13 EDI_NAE W 5 4K2K_8CH_5	Interior EDID 5 name write
6	ATM 13 EDI_NAE W 6 4K2K_8CH_6	13 EDI_NAE W 6 4K2K_8CH_6	Interior EDID 6 name write
7	ATM 13 EDI_NAE W 7 4K2K_8CH_7	EDI_NAE W 7 4K2K_8CH_7	Interior EDID 7 name write

Read EDID Name (EEPROM)

Instruction: Read Interior EDID (*1-7*) name

Command:	ATM 09 EDI_NAE R *x*	*x = 1 – 7 (Interior EDID)*
Feedback:	09 EDI_NAE R *x*	*x = 1 – 7 (Interior EDID)*

Item	Command	Feedback	Description
1	ATM 09 EDI_NAE R 1	09 EDI_NAE R 1	Interior EDID 1 name read
2	ATM 09 EDI_NAE R 2	09 EDI_NAE R 2	Interior EDID 2 name read
3	ATM 09 EDI_NAE R 3	09 EDI_NAE R 3	Interior EDID 3 name read
4	ATM 09 EDI_NAE R 4	09 EDI_NAE R 4	Interior EDID 4 name read
5	ATM 09 EDI_NAE R 5	09 EDI_NAE R 5	Interior EDID 5 name read
6	ATM 09 EDI_NAE R 6	09 EDI_NAE R 6	Interior EDID 6 name read
7	ATM 09 EDI_NAE R 7	09 EDI_NAE R 7	Interior EDID 7 name read

Write EDID (EEPROM)

Instruction: Write EDID of the RAM into EEPROM (*1-7*)

Command:	ATM 09 EDI_EEP W *x*	*x = 1 – 7 (Interior EDID)*
Feedback:	09 EDI_EEP W *x*	*x = 1 – 7 (Interior EDID)*

Item	Command	Feedback	Description
1	ATM 09 EDI_EEP W 1	09 EDI_EEP W 1	Write EDID of the RAM into the EEPROM 1
2	ATM 09 EDI_EEP W 2	09 EDI_EEP W 2	Write EDID of the RAM into the EEPROM 2
3	ATM 09 EDI_EEP W 3	09 EDI_EEP W 3	Write EDID of the RAM into the EEPROM 3
4	ATM 09 EDI_EEP W 4	09 EDI_EEP W 4	Write EDID of the RAM into the EEPROM 4
5	ATM 09 EDI_EEP W 5	09 EDI_EEP W 5	Write EDID of the RAM into the EEPROM 5
6	ATM 09 EDI_EEP W 6	09 EDI_EEP W 6	Write EDID of the RAM into the EEPROM 6
7	ATM 09 EDI_EEP W 7	09 EDI_EEP W 7	Write EDID of the RAM into the EEPROM 7

Read EDID (EEPROM)

Instruction: Read EDID of the EEPROM (*1-7*)

Command:	ATM 09 EDI_EEP R *x*	*x = 1 – 7 (Interior EDID)*

Item	Command	Feedback	Description
1	ATM 09 EDI_EEP R 1		Read EDID of the EEPROM 1
2	ATM 09 EDI_EEP R 2		Read EDID of the EEPROM 2
3	ATM 09 EDI_EEP R 3		Read EDID of the EEPROM 3
4	ATM 09 EDI_EEP R 4		Read EDID of the EEPROM 4
5	ATM 09 EDI_EEP R 5		Read EDID of the EEPROM 5
6	ATM 09 EDI_EEP R 6		Read EDID of the EEPROM 6
7	ATM 09 EDI_EEP R 7		Read EDID of the EEPROM 7

Copy Preset EDID to Port_1

Instruction: Copy Preset EDID (*1-6*) to Port (*1-7*)

Command:	ATM 0B EDI_POR W *x* C *y*	*x = 1 – 7 (port)*	*y = 1-6 (Preset EDID)*
Feedback:	0B EDI_POR W *x* C *y*	*x = 1 – 7 (port)*	*y = 1-6 (Preset EDID)*

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 1 C 1	0B EDI_POR W 1 C 1	Copy the preset EDID 1 in the program to port 1
2	ATM 0B EDI_POR W 1 C 2	0B EDI_POR W 1 C 2	Copy the preset EDID 2 in the program to port 1
3	ATM 0B EDI_POR W 1 C 3	0B EDI_POR W 1 C 3	Copy the preset EDID 3 in the program to port 1
4	ATM 0B EDI_POR W 1 C 4	0B EDI_POR W 1 C 4	Copy the preset EDID 4 in the program to port 1
5	ATM 0B EDI_POR W 1 C 5	0B EDI_POR W 1 C 5	Copy the preset EDID 5 in the program to port 1
6	ATM 0B EDI_POR W 1 C 6	0B EDI_POR W 1 C 6	Copy the preset EDID 6 in the program to port 1

Copy EEPROM EDID to Port 1

Instruction: Copy EDID of the EEPROM (*1-7*) to Port (*1-7*)

Command:	ATM 0B EDI_POR W *x* E *y*	*x = 1 – 7 (port)*	*y = 1-7 (EDID of the EEPROM)*
Feedback:	0B EDI_POR W *x* E *y*	*x = 1 – 7 (port)*	*y = 1-7 (EDID of the EEPROM)*

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 1 E 1	0B EDI_POR W 1 E 1	Copy the EDID of the EEPROM 1 to port 1
2	ATM 0B EDI_POR W 1 E 2	0B EDI_POR W 1 E 2	Copy the EDID of the EEPROM 2 to port 1
3	ATM 0B EDI_POR W 1 E 3	0B EDI_POR W 1 E 3	Copy the EDID of the EEPROM 3 to port 1
4	ATM 0B EDI_POR W 1 E 4	0B EDI_POR W 1 E 4	Copy the EDID of the EEPROM 4 to port 1
5	ATM 0B EDI_POR W 1 E 5	0B EDI_POR W 1 E 5	Copy the EDID of the EEPROM 5 to port 1
6	ATM 0B EDI_POR W 1 E 6	0B EDI_POR W 1 E 6	Copy the EDID of the EEPROM 6 to port 1
7	ATM 0B EDI_POR W 1 E 7	0B EDI_POR W 1 E 7	Copy the EDID of the EEPROM 7 to port 1

Copy Preset EDID to Port_2

See Instructions for for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 2 C 1	0B EDI_POR W 2 C 1	Copy the preset EDID 1 in the program to port 2
2	ATM 0B EDI_POR W 2 C 2	0B EDI_POR W 2 C 2	Copy the preset EDID 2 in the program to port 2
3	ATM 0B EDI_POR W 2 C 3	0B EDI_POR W 2 C 3	Copy the preset EDID 3 in the program to port 2
4	ATM 0B EDI_POR W 2 C 4	0B EDI_POR W 2 C 4	Copy the preset EDID 4 in the program to port 2

Item	Command	Feedback	Description
5	ATM 0B EDI_POR W 2 C 5	0B EDI_POR W 2 C 5	Copy the preset EDID 5 in the program to port 2
6	ATM 0B EDI_POR W 2 C 6	0B EDI_POR W 2 C 6	Copy the preset EDID 6 in the program to port 2

Copy EEPROM EDID to Port_2

See Instructions for [Copy EEPROM EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 2 E 1	0B EDI_POR W 2 E 1	Copy the EDID of the EEPROM 1 to port 2
2	ATM 0B EDI_POR W 2 E 2	0B EDI_POR W 2 E 2	Copy the EDID of the EEPROM 2 to port 2
3	ATM 0B EDI_POR W 2 E 3	0B EDI_POR W 2 E 3	Copy the EDID of the EEPROM 3 to port 2
4	ATM 0B EDI_POR W 2 E 4	0B EDI_POR W 2 E 4	Copy the EDID of the EEPROM 4 to port 2
5	ATM 0B EDI_POR W 2 E 5	0B EDI_POR W 2 E 5	Copy the EDID of the EEPROM 5 to port 2
6	ATM 0B EDI_POR W 2 E 6	0B EDI_POR W 2 E 6	Copy the EDID of the EEPROM 6 to port 2
7	ATM 0B EDI_POR W 2 E 7	0B EDI_POR W 2 E 7	Copy the EDID of the EEPROM 7 to port 2

Copy Preset EDID to Port_3

See Instructions for [Copy Preset EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 3 C 1	0B EDI_POR W 3 C 1	Copy the preset EDID 1 in the program to port 3
2	ATM 0B EDI_POR W 3 C 2	0B EDI_POR W 3 C 2	Copy the preset EDID 2 in the program to port 3
3	ATM 0B EDI_POR W 3 C 3	0B EDI_POR W 3 C 3	Copy the preset EDID 3 in the program to port 3
4	ATM 0B EDI_POR W 3 C 4	0B EDI_POR W 3 C 4	Copy the preset EDID 4 in the program to port 3
5	ATM 0B EDI_POR W 3 C 5	0B EDI_POR W 3 C 5	Copy the preset EDID 5 in the program to port 3
6	ATM 0B EDI_POR W 3 C 6	0B EDI_POR W 3 C 6	Copy the preset EDID 6 in the program to port 3

Copy EEPROM EDID to Port_3

See Instructions for [Copy EEPROM EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 3 E 1	0B EDI_POR W 3 E 1	Copy the EDID of the EEPROM 1 to port 3
2	ATM 0B EDI_POR W 3 E 2	0B EDI_POR W 3 E 2	Copy the EDID of the EEPROM 2 to port 3
3	ATM 0B EDI_POR W 3 E 3	0B EDI_POR W 3 E 3	Copy the EDID of the EEPROM 3 to port 3
4	ATM 0B EDI_POR W 3 E 4	0B EDI_POR W 3 E 4	Copy the EDID of the EEPROM 4 to port 3
5	ATM 0B EDI_POR W 3 E 5	0B EDI_POR W 3 E 5	Copy the EDID of the EEPROM 5 to port 3
6	ATM 0B EDI_POR W 3 E 6	0B EDI_POR W 3 E 6	Copy the EDID of the EEPROM 6 to port 3

| 7 | ATM 0B EDI_POR W 3 E 7 | 0B EDI_POR W 3 E 7 | Copy the EDID of the EEPROM 7 to port 3 |

Copy Preset EDID to Port_4

See Instructions for [Copy Preset EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 4 C 1	0B EDI_POR W 4 C 1	Copy the preset EDID 1 in the program to port 4
2	ATM 0B EDI_POR W 4 C 2	0B EDI_POR W 4 C 2	Copy the preset EDID 2 in the program to port 4
3	ATM 0B EDI_POR W 4 C 3	0B EDI_POR W 4 C 3	Copy the preset EDID 3 in the program to port 4
4	ATM 0B EDI_POR W 4 C 4	0B EDI_POR W 4 C 4	Copy the preset EDID 4 in the program to port 4
5	ATM 0B EDI_POR W 4 C 5	0B EDI_POR W 4 C 5	Copy the preset EDID 5 in the program to port 4
6	ATM 0B EDI_POR W 4 C 6	0B EDI_POR W 4 C 6	Copy the preset EDID 6 in the program to port 4

Copy EEPROM EDID to Port_4

See Instructions for [Copy EEPROM EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 4 E 1	0B EDI_POR W 4 E 1	Copy the EDID of the EEPROM 1 to port 4
2	ATM 0B EDI_POR W 4 E 2	0B EDI_POR W 4 E 2	Copy the EDID of the EEPROM 2 to port 4
3	ATM 0B EDI_POR W 4 E 3	0B EDI_POR W 4 E 3	Copy the EDID of the EEPROM 3 to port 4
4	ATM 0B EDI_POR W 4 E 4	0B EDI_POR W 4 E 4	Copy the EDID of the EEPROM 4 to port 4
5	ATM 0B EDI_POR W 4 E 5	0B EDI_POR W 4 E 5	Copy the EDID of the EEPROM 5 to port 4
6	ATM 0B EDI_POR W 4 E 6	0B EDI_POR W 4 E 6	Copy the EDID of the EEPROM 6 to port 4
7	ATM 0B EDI_POR W 4 E 7	0B EDI_POR W 4 E 7	Copy the EDID of the EEPROM 7 to port 4

Copy Preset EDID to Port_5

See Instructions for [Copy Preset EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 5 C 1	0B EDI_POR W 5 C 1	Copy the preset EDID 1 in the program to port 5
2	ATM 0B EDI_POR W 5 C 2	0B EDI_POR W 5 C 2	Copy the preset EDID 2 in the program to port 5
3	ATM 0B EDI_POR W 5 C 3	0B EDI_POR W 5 C 3	Copy the preset EDID 3 in the program to port 5
4	ATM 0B EDI_POR W 5 C 4	0B EDI_POR W 5 C 4	Copy the preset EDID 4 in the program to port 5
5	ATM 0B EDI_POR W 5 C 5	0B EDI_POR W 5 C 5	Copy the preset EDID 5 in the program to port 5
6	ATM 0B EDI_POR W 5 C 6	0B EDI_POR W 5 C 6	Copy the preset EDID 6 in the program to port 5

Copy EEPROM EDID to Port_5

See Instructions for [Copy EEPROM EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 5 E 1	0B EDI_POR W 5 E 1	Copy the EDID of the EEPROM 1 to port 5
2	ATM 0B EDI_POR W 5 E 2	0B EDI_POR W 5 E 2	Copy the EDID of the EEPROM 2 to port 5
3	ATM 0B EDI_POR W 5 E 3	0B EDI_POR W 5 E 3	Copy the EDID of the EEPROM 3 to port 5
4	ATM 0B EDI_POR W 5 E 4	0B EDI_POR W 5 E 4	Copy the EDID of the EEPROM 4 to port 5
5	ATM 0B EDI_POR W 5 E 5	0B EDI_POR W 5 E 5	Copy the EDID of the EEPROM 5 to port 5
6	ATM 0B EDI_POR W 5 E 6	0B EDI_POR W 5 E 6	Copy the EDID of the EEPROM 6 to port 5
7	ATM 0B EDI_POR W 5 E 7	0B EDI_POR W 5 E 7	Copy the EDID of the EEPROM 7 to port 5

Copy Preset EDID to Port_6

See Instructions for [Copy Preset EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 6 C 1	0B EDI_POR W 6 C 1	Copy the preset EDID 1 in the program to port 6
2	ATM 0B EDI_POR W 6 C 2	0B EDI_POR W 6 C 2	Copy the preset EDID 2 in the program to port 6
3	ATM 0B EDI_POR W 6 C 3	0B EDI_POR W 6 C 3	Copy the preset EDID 3 in the program to port 6
4	ATM 0B EDI_POR W 6 C 4	0B EDI_POR W 6 C 4	Copy the preset EDID 4 in the program to port 6
5	ATM 0B EDI_POR W 6 C 5	0B EDI_POR W 6 C 5	Copy the preset EDID 5 in the program to port 6
6	ATM 0B EDI_POR W 6 C 6	0B EDI_POR W 6 C 6	Copy the preset EDID 6 in the program to port 6

Copy EEPROM EDID to Port_6

See Instructions for [Copy EEPROM EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 6 E 1	0B EDI_POR W 6 E 1	Copy the EDID of the EEPROM 1 to port 6
2	ATM 0B EDI_POR W 6 E 2	0B EDI_POR W 6 E 2	Copy the EDID of the EEPROM 2 to port 6
3	ATM 0B EDI_POR W 6 E 3	0B EDI_POR W 6 E 3	Copy the EDID of the EEPROM 3 to port 6
4	ATM 0B EDI_POR W 6 E 4	0B EDI_POR W 6 E 4	Copy the EDID of the EEPROM 4 to port 6
5	ATM 0B EDI_POR W 6 E 5	0B EDI_POR W 6 E 5	Copy the EDID of the EEPROM 5 to port 6
6	ATM 0B EDI_POR W 6 E 6	0B EDI_POR W 6 E 6	Copy the EDID of the EEPROM 6 to port 6
7	ATM 0B EDI_POR W 6 E 7	0B EDI_POR W 6 E 7	Copy the EDID of the EEPROM 7 to port 6

Copy Preset EDID to Port_7

See Instructions for [Copy Preset EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 7 C 1	0B EDI_POR W 7 C 1	Copy the preset EDID 1 in the program to port 7
2	ATM 0B EDI_POR W 7 C 2	0B EDI_POR W 7 C 2	Copy the preset EDID 2 in the program to port 7
3	ATM 0B EDI_POR W 7 C 3	0B EDI_POR W 7 C 3	Copy the preset EDID 3 in the program to port 7
4	ATM 0B EDI_POR W 7 C 4	0B EDI_POR W 7 C 4	Copy the preset EDID 4 in the program to port 7
5	ATM 0B EDI_POR W 7 C 5	0B EDI_POR W 7 C 5	Copy the preset EDID 5 in the program to port 7
6	ATM 0B EDI_POR W 7 C 6	0B EDI_POR W 7 C 6	Copy the preset EDID 6 in the program to port 7

Copy EEPROM EDID to Port_7

See Instructions for [Copy EEPROM EDID to Port 1](#) for details.

Item	Command	Feedback	Description
1	ATM 0B EDI_POR W 7 E 1	0B EDI_POR W 7 E 1	Copy the EDID of the EEPROM 1 to port 7
2	ATM 0B EDI_POR W 7 E 2	0B EDI_POR W 7 E 2	Copy the EDID of the EEPROM 2 to port 7
3	ATM 0B EDI_POR W 7 E 3	0B EDI_POR W 7 E 3	Copy the EDID of the EEPROM 3 to port 7
4	ATM 0B EDI_POR W 7 E 4	0B EDI_POR W 7 E 4	Copy the EDID of the EEPROM 4 to port 7
5	ATM 0B EDI_POR W 7 E 5	0B EDI_POR W 7 E 5	Copy the EDID of the EEPROM 5 to port 7
6	ATM 0B EDI_POR W 7 E 6	0B EDI_POR W 7 E 6	Copy the EDID of the EEPROM 6 to port 7
7	ATM 0B EDI_POR W 7 E 7	0B EDI_POR W 7 E 7	Copy the EDID of the EEPROM 7 to port 7

Read EDID from Port

Instruction: Read EDID from Port (*1-7*)

Command:	ATM 09 EDI_POR R *x*	*x = 1 – 7 (Port)*
Feedback:	09 EDI_POR R *x*	*x = 1 – 7 (Port)*

Item	Command	Feedback	Description
Read EDID of input#1	ATM 09 EDI_POR R 1	09 EDI_POR R 1	Read EDID from input port 1
Read EDID of input#2	ATM 09 EDI_POR R 2	09 EDI_POR R 2	Read EDID from input port 2
Read EDID of input#3	ATM 09 EDI_POR R 3	09 EDI_POR R 3	Read EDID from input port 3
Read EDID of input#4	ATM 09 EDI_POR R 4	09 EDI_POR R 4	Read EDID from input port 4
Read EDID of input#5	ATM 09 EDI_POR R 5	09 EDI_POR R 5	Read EDID from input port 5
Read EDID of input#6	ATM 09 EDI_POR R 6	09 EDI_POR R 6	Read EDID from input port 6
Read EDID of input#7	ATM 09 EDI_POR R 7	09 EDI_POR R 7	Read EDID from input port 7

EDID copy

Instruction: Copy the EDID of output 1 and assigned it onto the input (*1-7*)

Command:	ATM 09 EDI_CPY 1 *x*	*x = 1 – 7 (Input)*
Feedback:	09 EDI_CPY 1 *x*	*x = 1 – 7 (Input)*

Item	Command	Feedback	Description
Copy EDID from output#1 To Input#1	ATM 09 EDI_CPY 1 1	09 EDI_CPY 1 1	copy the EDID of output 1 and assigned it onto the input 1
Copy EDID from output#1 To Input#1	ATM 09 EDI_CPY 1 2	09 EDI_CPY 1 2	copy the EDID of output 1 and assigned it onto the input 2
Copy EDID from output#1 To Input#1	ATM 09 EDI_CPY 1 3	09 EDI_CPY 1 3	copy the EDID of output 1 and assigned it onto the input 3
Copy EDID from output#1 To Input#1	ATM 09 EDI_CPY 1 4	09 EDI_CPY 1 4	copy the EDID of output 1 and assigned it onto the input 4
Copy EDID from output#1 To Input#1	ATM 09 EDI_CPY 1 5	09 EDI_CPY 1 5	copy the EDID of output 1 and assigned it onto the input 5
Copy EDID from output#1 To Input#1	ATM 09 EDI_CPY 1 6	09 EDI_CPY 1 6	copy the EDID of output 1 and assigned it onto the input 6
Copy EDID from output#1 To Input#1	ATM 09 EDI_CPY 1 7	09 EDI_CPY 1 7	copy the EDID of output 1 and assigned it onto the input 7

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