A63 User Quick Setup Guide

@Configure Mode 1 (CfgM1)

(Version 1.1)



Shenzhen VDWALL Co.,Ltd 2020.03

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1. Front Button Description

| | | | | | Multi- | window | operation | | |
|---|--------------------------|---|---|---------------|---|---|--|------------|---|
| - | VD\ALL 唯奥视讯 VD\ALL | HDMI-1 HDMI-2 DP-1 In-A HDMI-3 HDMI-4 DP-2 In-B HDMI-5 DP-3 In-C | SDI-1 HDMI-6 AVGA-1 CVBS-1 In=D SDI-2 HDMI-7 NGA-2 CVBS-2 In=E PIP In-D In-E | \bigcirc | ♦ Setup Brt+ 5 Brt- 5 Info Lock | Win-1 In-A/B/C Win-2 In-A/B/C DM-0 DM | Win-3 Win-4 Fade -In In-D / E Win-5 Win-6 Fade -Out In-D / E Fade -Out Fade -Out In-D / E Fade -Out In-D / E Fade -Out | A63 | - |
| | Input signal select | ion | Men | / nu setup | C |)isplay m | ode button | | |

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| Category | Buttons | Description |
|----------------------------------|---|---|
| Input signal selection | HDMI-1 HDMI-2 DP-1 SDI-1 HDMI-6 CVBS-1 HDMI-3 HDMI-4 DP-2 SDI-2 HDMI-7 CVBS-2 HDMI-5 DP-3 | A63 contains 5 input cards, identified as: In-A、 In-B、 In-C、 In-D and In-E. In-A、 In-B can access 4K or 2K signal, In-C only support 4K2K signal, In-D、 In-E support 2K signal. Press corresponding button to select input channel for each input card, if selected channel have valid signal, button light indicator on, or else, light indicator flicker. |
| | <u>PIP In-D</u> 、 <u>PIP In-E</u> | In-D、In-E card support PIP/POP(dual image) function. Press this button directly, button indicator will light up, PIP/POP function will be activated for associated input card. Henceforth, select the sub-image signal. |
| Multi-win operation button | Win-1Win-3Win-4Win-2Win-5Win-6 | A63 in configuration mode1 (CfgM1), provides 4 windows display simultaneously, identified as Win1、Win2、Win3、Win5. Win1、Win3 in one group, Win2、Win5 in one group. Press Win1、 Win-2、Win-3、Win-5 directly to assign selected window on top. When configure window parameters, press these buttons to select target window first. |
| | Fade-In Fade-Out | Fade-Out set selected window on top, Fade-In set selected window at bottom. A63 in configuration1 (CfgM1), both buttons are invalid. |
| Lock | Lock | Button lock. When this button light up, all button will be invalid except Lock button itself, hence avoid misoperation. Press this button 3 times continually to exit button lock mode, button indicator will light off. |
| Info button | Info | Information button, display A63 configuration data and software version etc, press this button to turn page. In Cascading mode, when slave A63 GenLock successfully locked, Info button light up, or else flicker |

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| Category | Buttons | Description |
|----------------------|---|---|
| | <u>Setup</u> | Menu button. When A63 in operation mode, press this button to enter menu setup. |
| Menu setup button | Ok Ok | Knob button, rotate this button to change configuration value or press this button to confirm and apply configuration |
| | | Up and Down selection button. After enter menu setup, press this button to select menu item. |
| | Brt- Brt+ | When A63 in operation mode , press this button directly to adjust output image brightness. |
| | | Return button. Press this button to exit present menu and return to previous menu, |
| | D | until A63 exit menu setup and enter operation mode. |
| | <u>DM-0</u> 、 <u>DM-1</u> 、 <u>DM-2</u> | Display mode selection button. Preset display mode parameters include: window composition, window |
| | | signal source,window overlay sequence,window Position&Size, In operation mode, press DM-0 |
| Display mode | | <u>DM-1</u> , <u>DM-2</u> to switch different display mode; In menu setup mode, press <u>DM-0</u> , <u>DM-1</u> , <u>DM-2</u> to save |
| select button | | present setup parameters automatically at target mode. |
| | DM+ | Extended display mode selection button, press this button to enter more preset mode selection menu, the |
| | | menu includes: DM0、DM1、DM2、DM3、 DM4、DM5、DM6、DM7、DM8、DM9、DM10、DM11. |
| | | Select target display mode by pressing $\underline{1}$, $\underline{\uparrow}$ button. |
| | TAKE | When A63 in switcher mode(CfgM1), this button is invalid |

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2. Back Panel Port Description



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1) Input signal port

A63 can build in 5 input cards utmost:

- > In-A、In-B is 4K input card, each card contains HDMI2.0×2 and DP1.2×1, support 4K2K_60Hz UHD Signal and 2K HD signal access in
- > In-C is 4K input card, contains HDMI2.0×1 and DP1.2×1, only support 3840*2160_60/50/30/25/24 Hz UDH signal
- In-D、In-E is 2K input card, each card consists of CVBS×1、3G-SDI×1、HDMI(DVI/VGA)×1, HDMI version is 1.3. HDMI input port is compatible with DVI、VGA signal, when access in VGA signal, set the DIP switcher to VGA side.

2) Output signal port

- > A63 provides 2 HDMI output port, identified as OUT-A, OUT-B. Both ports support output resolution 3840*2160_60Hz or 3840*2160_50Hz
- > In configuration mode 1(CfgM1), mosaic mode, Out-A and Out-B jointly display one 8K*2K image

3) Communication port

- > LAN: TCP / IP Enthernet control port
- ➢ USB and RS232 control port

4) GenLock Cascading port

- > A63 support multi-device cascading, realize extended input and output resolution driving
- > In cascading mode, slave A63 receive synchronous command from master A63 VIA GenLock In port, master A63 send out synchronous command VIA GenLock Out port.
- > A63 provides Out-1、Out-3、Out-3、Out-4 total 4 GenLock output, supports 5 device cascading.

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3. In CfgM1 Mode, A63 Image Processing Procedure



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Description:

- 1) A63 image processing procedure is divided into 3 main steps:
 - S1: Select input signal channel for input card
 - S2: Select signal source for Multi-window
 - S3: Adjust Position&Size of Multi-window
- 2) Select input signal channel for input card (S1)
 - 2.1) A63 contains 3 types of input card:
 - 4K input card: In-A 、In-B
 - 4K direct input card: In-C
 - 2K input card: In-D、In-E
 - 2.2) In-A support both 4K and 2K input, select one channel from HDMI-1、HDMI-2 or DP-1 for In A
 - 2.3) In-B support both 4K and 2K input, select one channel from HDMI-3、HDMI-4 or DP-2 for in B
 - 2.4) In-C is direct 4K input, can only access in 3840×2160_60Hz/50 Hz/30 Hz/25 Hz/24Hz standard 4K UHD signal, select HDMI-5 or DP-3 for In C
 - 2.5) In-D is 2K input card, can select signal from SDI-1, HDMI-6 or CVBS-1. when open PIP-D, can select one another channel as sub image
 - 2.6) In-E is 2K also input card, can select signal from SDI-2, HDMI-7 or CVBS-2. when open PIP-E, can select one another channel as sub image
 - 2.7) All the signals mentioned above can be selected by A63 front panel button
- 3) Select signal source for each window (S2)
 - 3.1) A63 In configuration mode 1(CfgM1), A63 support 4 windows display, Win1, Win2, Win3, win 5
 - 3.2) Win1, Win2 can select signal source from In-A, In-B or In-C
 - 3.4) Win3 $\$ Win5 can select signal source from In-D or In-E

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- 4) Adjust Position&Size of each window (S3)
 - 4.1) Out A display Win1 、 Win3
 - 4.2) Out B display Win2 、 Win5
 - 4.3) In CfgM1 mode, Win1, Win2, Win3, win 5 can randomly set Position&Size within 4K2K

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4. Menu Setup

A63 supports 3 configuration mode:

| Configuration mode 0 (CfgM0) | Switcher mode |
|------------------------------|---------------|
| Configuration mode 1 (CfgM1) | Mosaic mode |
| Configuration mode 2 (CfgM2) | 4 image mode |

- Detailed description of 3 configuration mode please refer to 《A63 configuration mode definition》
- When A63 in operation mode, press <u>Setup</u> button to enter setup menu, press <u>↑</u> 、 <u>↓</u> and <u>Setup</u> enter " *8.1 Config Mode* "
 Rotate <u>Knob</u> to select target configuration mode

Then press <u>↓</u> button, enter "8.3 *Reset Data*", press <u>OK</u> to apply, A63 will automatically reboot and apply the selected configuration mode

- > Usually no need change A63 configuration mode unless in essential
- Usually, user need adjust "8.2 Resolution". A63 provides 2 output resolution: 3840×2160_60Hz、3840×2160_50Hz
- When apply "8.3 Reset Data", all existed configuration data in A63 will be initialized and reset to default values.

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In the following paragraph, we will illustrate configuration mode 1 (CfgM1) step by step

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| 8. System | | |
|-----------------|----------------|---|
| 8.1 Config Mode | CfgMO→ CfgM1 | ? |
| 8.2 Resolution | 3840×2160_60Hz | |
| 8.3 Reset Data | OK To Apply | |
| (2 Mosaic) | | |

Figure 4-1

(Step1) : Input And Output Signal Conection

- 1.1) Connect input signal to A63 input card
- 1.2) Connect OUT-A to unit screen 1
- 1.3) Connect OUT-B to unit screen 2
- 1.4) Usually, system connection as Figure 4-2:



Figure 4-2

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(Step2) : Power On Processor

- 2.1) A63 power on, wait for boot up
- 2.2) As Figure 4-3, Configuration mode 1 boot up image
- 2.3 Win1 select In-A as signal sourceWin 2 select In-A as signal sourceWin 3 select In-D as signal sourceWin 5 select In-D as signal source
- 2.4) Display mode 0 (DM0)
- 2.5) Out-A=Win1 + Win3 , Out-B=Win2 + Win5

(Step3) : Select Input Signal

- 3.1) Press signal selection button to select input signal channel
- 3.2) If selected channel have valid signal, button indicator will light up, or else, button indicator will flicker
- 3.3) If selected signal channel have valid signal, A63 LCD will display the input signal format
- 3.4) Press **PIP In-D** button to activate In-D PIP/POP function, select the sub image signal source for In-D
- 3.5) Press **PIP In-E** button to activate In-E PIP/POP function, select the sub image signal source for In-E

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In-A: HDMI1



(Step4) : Window Source Selection

- 4.1) Press <u>Setup</u> 、 <u>↓</u>、 <u>↑</u> button enter menu" 3.2 Win1 Source ", rotate
 <u>Knob</u> to select Win1 signal source
- 4.2) Enter menu" 3.3 Win3 Source ", rotate Knob to select Win2 signal source
- 4.3) All configuration data is saved in DM0, as Figure 4-4
- 4.4) Similarly, enter menu

"4.2 Win2 Source "

"4.3 Win5 Source "

Select signal source for Out-B

4.5) All above configuration data is saved in "DM0", As Figure 4-4 red frame show, current display mode is "DM0",

press DM-1 、 DM-2 or DM+ button to select other display mode

| | Display Mode | |
|-------------------------|--------------|--|
| | | |
| 3. Out-A Win Picture | DMO | |
| 3.1 Null | | |
| 3.2 Win1 Source | In-B ? | |
| 3.3 Win3 Source | In-D | |
| 3.4 Null | | |
| 3.5 Null | | |
| 3.6 Pos.&Size | » | |
| 3.7 Border | 》 | |
| 3.8 Color & Brightness, | etc » | |

Figure 4-4

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(Step5) : Multi-window Position&Size Setup

- 5.1) A63 in display mode 1 (CfgM1), Win1, Win2 Win3, Win5 Position&Size is adjustable, among which: Out-A display Win1+Win3 Out-B display Win2+Win5
- 5.2) Window position is identified by coordinates, the start point is top left(0.0), position range within 3840×2160, defined as:

H_Start (Horizontal start),

V_Start (vertical start)

- 5.3) window size defined as Width and Height
- $5.4\,)\,$ As Figure 4-5 , Win3 size and position setup
- 5.5) Refer to Figure 4-5, Win1 position is (0, 0), size is 3840×2160, whole image display



Figure 4-5

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- 5.6) Enter menu " 3.6 Pos. & Size ", as Figure 4-6
- 5.7) Press <u>Win-1</u> or <u>Win-3</u> button to select target window (As Figure 4-6: the selected window is Win1)
- 5.8) Press <u>DM-0</u>, <u>DM-1</u>, <u>DM-2</u>, <u>DM+</u> to select display mode
 As the right picture, the red arrowhead select DM0)
 A63 can preset 12 display modes
- 5.9) Enter menu " 3.6.1 Out Width", rotate Knob to adjust value, press OK to save setup value
- 5.10) Enter menu " 3.6.2 Out H_Start ", rotate Knob to adjust value, press OK to save setup value
- 5.11) Enter menu " 3.6.3 *Out Height* ", rotate <u>Knob</u> to adjust value, press <u>OK</u> to save setup value
- 5.12) Enter menu "3.6.4 Out V_Start", rotate Knob to adjust value, press OK to save setup value
- 5.13) Repeat procedure 5.7) -5.12), adjust the other window's Position&Size (Win-n) save more multi-window display mode DM-n
- 5.14) Similarly, enter menu "4.6 Pos. & Size", set Win2 Win5 Position & Size

| VD | NAL | L CC |)L | ٢D |
|----|-----|------|----|----|
| | | _ | | |

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Figure 4-6



(Step6) : Input Signal Image Cropping

- 6.1) Win1、Win2 can arbitrarily crop 4K2K input image at any Position&Size
- 6.2) As the Figure 4-7, the input image size in red frame is 3840×2160, the Position&Size of cropped image in red dot frame are defined by the following 4 parameters:

| Input width | (In_Width) |
|------------------------|--------------|
| Input horizontal start | (In_H_Start) |
| Input height | (In_Height) |
| Input vertical start | (In_V_Start) |



Figure 4-7

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- 6.3) Enter menu "3.6 Pos. & Size", as Figure 4-8
- 6.4) Press <u>Win-1</u> button to set target window, (as the Figure 4-8: win1)A63 can crop any Position&Size of input signal
- 6.5) Press <u>DM-0</u>, <u>DM-1</u>, <u>DM-2</u>, <u>DM+</u> to select the target preset mode, all parameters will be automatically saved in this mode
 (As the right picture, the selected mode is DM0)
 A63 can preset maximum 12 display modes
- 6.6) Enter menu "3.6.5 In Width", rotate Knob to adjust value, press OK to save setup value
- 6.7) Enter menu "3.6.6 In H_Start", rotate Knob to adjust value, press OK to save value

| | Display mode | Selected window |
|----------------------|--------------|-----------------|
| | | |
| 3.6 Po | s.&Size | DMO/Win1 |
| | | |
| 3.6.1 | Out Width | 3600 |
| 3.6.2 | Out H_Start | 0 |
| 3.6.3 | Out Height | 2160 |
| 3.6.4 | Out V_Start | 0 |
| <mark>3. 6. 5</mark> | In Width | 3840 -> 1920 |
| 3.6.6 | In H_Start | 0 |
| 3.6.7 | In Height | 2160 |
| 3.6.8 | In V_Start | 0 |

Figure4-8

- 6.8) Enter menu "3.6.7 In Height", rotate Knob to adjust value, press OK to save value
- 6.9) Enter menu "3.6.8 In V_Start", rotate Knob to adjust value, press OK to save value
- 6.10) Repeat procedure 6.5) -6.9), adjust the other window Position&Size (Win-n) save more multi-window display mode DM-n
- 6.11) Similarly, enter menu " 4.6 Pos. & Size ", set Win2 Win5 Position & Size

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5. A63 Common Operation

(1) A63 Display Mode Switching

- > A63 in Mosaic mode, user may preset several display mode. For instance, Out-A, Out-B jointly display one 8K2K image or 2 4K2K image separately
- Press button <u>DM-0</u>, <u>DM-1</u>, <u>DM-2</u>, Out-A and Out-B will instantly apply display mode without any latency.
- Press <u>DM+</u> button for more display mode selection, press 1, 1 button to select DM0, DM1, DM2, DM3, DM4, DM5, DM6, DM7 or DM8, then press <u>OK</u> button to apply the selected mode.

(2) Display Mode Duplication

- > Display mode can preset parameters that consists of window composition, signal source and overlay sequence
- A63 provides 12 preset display mode, please refer to chapter <u>4 Menu Setup</u> to configure different display mode. In pursuit of fast modify and save display mode, we may use mode duplication function to copy current DM to target DM, then modify current mode efficiently
- Press <u>DM+</u> and ↑ 、↓ button, select " Source Mode DM0 ", rotate Knob to select source mode
- > Press <u></u>button, enter " *Destination Mode DM1*", rotate <u>Knob</u> to select destination mode
- > Press \downarrow button, enter " Copy OK To Apply", press OK button, mode duplication accomplish
- Source Mode and Destination Mode can be selected from DM0-DM11, be aware that DM9-DM11 as backup mode can't be edited directly, but permit being modified by duplication, hence to avert important display mode destroyed by misoperation

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- (3) Assign image on top or at bottom
 - Out-A display Win1 and Win3 image, directly press <u>Win-1</u> button to set Win1 on top, thereafter, Win3 will be at bottom. Similarly, press <u>Win-3</u> button, Win3 will be on top, hence, Win1 will be on top
 - Out-B display Win2 and Win5, directly press <u>Win-2</u> button to set Win2 on top, thereafter, Win5 will be at bottom. Similarly, press <u>Win-5</u> button, Win5 will be on top, hence, Win 2 will be at bottom
 - > Enter menu "6. Switch Time Cut", rotate Knob to configure switching time, including:

Cut

Fade 1S

Fade 2S

Fade 3S

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