

# AV KVM Over Fiber Matrix Switcher

User Manual

Version 2017 V1

Available from B2B Online Portal **CNE**AV.eu

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### Welcome

### About This Manual

This Manual is applicable to AVCLink (AV KVM Over Fiber Matrix Switcher). Thank you for choosing DigiBird, please read this manual carefully before using the product.

All pictures in this manual are only for reference, information in this document is subject to change without notice.

# **Cautions and Notes**

The following symbols are used in this manual:

	Notos	The necessary hints, additions and explanations to help you to understand the con-
	Notes	tent of the manual more clearly.
	Cautions	This symbol indicates best practice information to show recommended
	Cautions	and appropriate manner to use this product efficiently.
0	Warnings	The important operating instruction that should be followed to avoid any potential
	5	damage to hardware or property, data loss, or personal injury.

#### The following spellings are used in this manual:

Spelling	Description
<key></key>	Description of a key on the keyboard
<key +="" key=""></key>	Press keys simultaneously
<key, key=""></key,>	Press keys successively
[Menu item]	Description of a menu item in the software

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### Trademarks

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# Disclaimer

While every precaution has been taken during preparation of this manual, the manufacturer assumes no liability for errors or omissions. The manufacturer assumes no liability for damages resulting from the use of the information contained herein.

The manufacturer reserves the right to change specifications, functions, or circuitry of the product without notice.

The manufacturer cannot accept liability for damage due to misuse of the product or due to any other circumstances outside the manufacturer's control (whether environmental or installation related). The manufacturer shall not be liable for any loss, damage, or injury arising directly, indirectly, incidentally, or consequently from the use of this product.

# Introduction

DB-AVCLink is a powerful KVM matrix switcher, which completely transmits audio, video and KVM signal via fiber optical or twist pair without losses and latency, widely used in application of utility, security, government, and financial industry, etc.

DB-AVCLink consists of *Matrix Device* and *Optic Transfer Unit*. The chassis sizes are 8U and 26U; and the *Optic Transfer Unit* means Transmitter and Receiver.

# Matrix Device

### Front Panel

#### 8U chassis (160x ports)

The front panel of the 8U chassis is shown as below. You are able to change the IP address via the front panel, see <u>Set IP Address</u> for details.



#### 26U chassis (576x ports)

The Front Panel of 26U chassis is shown as below. You are able to change the IP address via the front panel, see <u>Set IP Address</u> for details.

Introduction



### Rear Panel

### The rear panel consists of below main slots:

Fan Slot	The slot for the cooling fans with auto adjustment feature.
Power Slot	The slot for the PSU (Power Supply Unit).
Control Slot	Slot for control board. There are two control board to ensure the system running as normal.Populated with Dual Control cards for backup.
CMC Slot	The Confidence Monitoring Slot to populate the CMC (Confidence Monitoring Card) card for local monitoring.
Output Slot	The slot to populate the output card, that includes eight (8x) pairs of dual-optical ports to be connected with the receiver/Rx.
Input Slot	The slot to populate the input card, that includes eight (8x) pairs of dual-optical ports to be connected with the transmitter/Tx.
Input / Output Port	Mixed dual-optical I/O ports, which can be defined to be input when connected with the transmitter/ Tx or to be output when connected with the receiver/Rx.

Please tighten the screws when insert the card into the slot.

### 8U chassis (160x ports)

The 8U chassis includes twenty (20x) I/O slots (no matter input or output), two (2x) control slots, one (1x) CMC slot, and two (2x) PSU slots.

#### Introduction

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					(	Con	trol										(	Comebac	k		Pov	wer					Fan

### 26U chassis (576x ports)

The 26U chassis includes thirty-six (36x) input slots, thirty-six (36x) output slots, two (2x) control slots, one (1x) CMC slot, and two (2x) PSU slots.

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				*(11111)*
	(B)	i e e e e	ë ë ë ë	 e e Fan

Set IP address

Operation

OSD

#### Introduction



POWER	Power indicator.						
IR	IR indicator. (Reserved for future use.)						
RUN	RUN indicator: illuminate when operating normally.						

# **Optic Transfer Unit**

DVI Tran	nsmitter
Front Panel	Rear Panel
DIGIBIRD CONTRE O FORER O VISEO AVCLINK Transmitter	
DVI Re	eceiver Rear Panel
DIGIBIRIO AVCLINK Receiver	O () C C C C C C C C C C C C C C C C C C
HDMI Tra	ansmitter Rear Panel
HDMI F	leceiver
Front Panel	Rear Panel
4K HDMI T	rapomittar
Front Panel	Rear Panel
	HDMI IN LOOP OUT AUDIO IN USS DC 12V
4K HDMI	Paceiver
Front Panel	Rear Panel
DP Trar	smitter
Front Panel	Rear Panel
DIGIBIRD AVCLInk Transmitter	O O O O O O O O O O O O O O O O O O O
	ansmitter
4K DP Tra Front Panel	Rear Panel
VGA Tra	nsmitter Rear Panel

SDI Tran	smitter
Front Panel	Rear Panel
DIGIBIR AVCLINK Transmitter	SDT IN LOOP OUT AUDIO IN USB DC 12V
SDI Rec	ceiver
Front Panel	Rear Panel
	Image: Sciout         Image: Line R, Image: Line

### Setup

For the first time, users are recommended to test your matrix prior to install for your project. This will assist you to avoid any cabling problems, and start to integrate with your system more efficiently.

Setup of the matrix

- 1. Install the I/O cards (usually be populated well by DigiBird)
- 2. Connect RX and TX to the I/O ports
- 3. Connect keyboard, mouse, and monitor to the RX
- 4. Connect sources (server, DVD, computer, media player, workstation...) to the TX
- 5. Connect the matrix to the power supply
- 6. Connect the control computer to the control card via RJ45 or RS232 port.

Darwin AVCLink Control System is a web-based software platform.

This manual is based on an 8U Matrix. The connection diagram is shown as below.



# Login

You should open the Browser, such as chrome, to visit the Darwin AVCLink Control System. The control computer and the Matrix must be in the same LAN network under the same domain.

Open the Chrome and input the IP of the Matrix, then press the <Enter> key. The default IP address of the Matrix is 192.168.1.200. You can change the IP address through the push buttons on the front panel, see "Set IP address" for details.

Darwin AVCLink Control X	à o 3 🗾 🎽			
← → C 🗅 192.168.1.205:8080/darwin/frame/login/index.html	¶-s2 ≡			

• You can input the user name and password in the Login page. The default user name is "admin", the password is "123", which can be changed after login.

Darwin AVCLink Control X		(d) (d) - X -
← → C 🗋 192.168.1.205:8080/darwin/frame/login/inde	c.html	¶ං දු) ≡
	DIGIBIRD	
	Darwin AVCLink Control System	
	User Name	
	Password	
	Remember user name and password	100 -
	Login	

# Overview

### Dashboard



The dashboard is shown as below when you login successfully.

1 Scene	If you save a configuration as a scene, the scene will be listed here. You can recall, rename, delete, or preview a scene under right-click menu.
2 Toolbar	The toolbar includes some function buttons, you can enter the dash- board, logout, save scenes, refresh system, preview configuration, and search ports through the filter.
3 Input /Output Ports	Here lists all the Input /Output ports you set, and the system will automatically detect the available ports.
4 Switching Relations	In this area, system will display the input and output ports that you selected.
5 Execution Area	Click the <b>[OK]</b> button to confirm, system will execute switching and KVM operation. Click the <b>[Cancel]</b> button to abandon.

Tool bar details:

			Backup status Log out Current user Alarm Backstage Language
avclink			admin 🐻 🕐 🕸 English 🔻
Save Scene		E Preview	Search ports
Save current configuration	Refresh port status	Preview current configuration	Search ports to filtering

### Settings

Click the icon 🔯 in the toolbar to enter the settings. The **[Settings]** includes: Config, user management, backup, alarm, system upgrade, and device license etc.

The 8U's port property supports custom-defined. When the matrix you use is an 8U chassis, you can see the [Unconfigured ports] in the middle of the page. The unconfigured ports are not connected to the sources or monitors and can be preconfigured as input or output, see <u>Configure Ports</u> for details.

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DIGIBIRD	*			adn	nin 둸   🛈	🕀   Dashboard
G	O Refresh Int Audio	III Resolution	5		Search ports	
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Users	1-1 3-1 (2) (1-2)	1-2 D	1-5 1.5	-6 1.6	(1-3) 1-3 (La) (H) (H) (1-4	) 1-4 📦 🇰 🝙
Backup			1-7 1-7	-8 1.8		
(!	4		(4-1) 4-1 (4	-2) 4-2		
Alarm			(43) 43	4 4.4		
System Upgrade			(4.5) 4.5	6 4.6		
<b>\$</b> 8			(47) 47 (4	8 4-8		
Custom Resolution	6		(5-1) 5-1 (5	2 5-2		
Factory 🖕			(c.) c.	a) sa		

### Switch

Switching a video resource to any display(s). The operation is as follows:

• Select an input signal in the [Input ports] list.

D DARWIN X	1											- 0 <u>- X</u>
← → C 🗋 192.168.1.205	5:8080/darwin/frar	ne/mainpage/in	dex.html?0.59	8915386240	55173							¶a ☆ ≡
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Scene												
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	Input port	5				Outpu	t ports					Select all
	1-1 1-1	1	2) 1-2			1-3 1	a (b)		1-4		-	
	Selected KN	Connected										
					Ok	Cancel						

 Select any output port(s) in the [output ports] list which you want to switch to. You can also select all output ports by clicking [Select all] button on the upper right corner of the [Output ports] list. (To cancel a selected port, click the port again.)

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DIGIBIRD	avclink					admin	15 O 🕀	🕸 English 🔹
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	-		Ed Freedom			Senier ports		
	Input port	6			Output ports			Select all
	1-1 1-1	1	2) 1-2		1-3 1-3 (E) (E	8 1-4 1-4		
	Selected KN	Connected						
	1-1	1-3						
				O	k Cancel			

- Click [Cancel] to abandon your selection.
- Click **[OK]** to enable the switching.

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	Input ports		Output ports	Select all
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	Selected KM Cor	nnected		
	1.1	1-3 1-4		
		[	Ok Cancel	
		L.		

### KVM

#### Set KVM channel

If you want to use the keyboard and mouse (referred as KM hereafter) to switch and control all resources, you should connect the keyboard and mouse to the RX through the USB cable, connect the resources to the TX through the USB cable as well.

Then you are able to setup via this software:

• Select an input port, then the selected output ports will be listed on the right.



• In the **[Output ports]** list, click the icon () of an output port which you want to use KVM via. The **[Switching Relations]** list will show the output ports you selected.

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Scene	🖹 Save Scene 🔘 Refreshing 🗒 Preview	Search ports
	Input ports	Output ports Select all
	(1-1) 1-4 (B) (1-2) 1-2 (B)	(1-3) 1-3 (E) (1-4) 1-4 (E) (F)
	Selected (1-1) (1-3) (1-4) (1-4)	
		Ok Cancel

• Click **[OK]** button, then you can control the selected resource that connected to the TX by the KM.

D DARWIN X			D X
	8080/darwin/frame/mainpage/index.html		ե⊗ ≡
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Scene			
	B Save Scene O Refresh	Search ports	
	Input ports	Output ports	Select all
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	900		
	Selected KM Connected		
	1-1 1-3 1-4		
192.168.1.205:8080/darwin/avclink/ind	ex.html?deviceId=815a7009e25643d89284c51e8350c6608title=avclink#	Cancel	

#### OSD

Press **<Ctrl** + **Shift** + **Alt** + **I>** keys on the keyboard that connected to the RX to enable the OSD. You are able to switch any resource or enable the KVM.

#### 1、Login

• Press <**Ctrl** + **Shift** + **Alt** + **I**> on the keyboard to enable OSD.

	CURRENT SOURCE NUM:01-1
LOG_IN	
SOURCES	
QUICK_SET	USER:
DEV_INFO	PASSWORD:
HELP	OK CANCEL

• Input username and password (Default username: admin; password: 123).

	CURRENT SOURCE NUM:01-1
LOG_IN	
SOURCES	
QUICK_SET	USER: admin
DEV_INFO	PASSWORD: ***_
HELP	OK CANCEL

Press <Enter> key to move the curser to [OK] button, and press <Enter> key again to login.



- 2 Switch
  - You will enter the **[SOURCES]** interface after you login. The **[SOURCES]** interface will list all ports online and offline, the gray highlighted means that offline and the white one means that on line.

	DLAUN	: NU1-	-ON-POS	STITON,	AHIIE:	UN-PU	OSITION	
LOG_IN								
SOURCES	01-1							
	02-1							
QUICK_SET	03-1							
DEV_INFO	04-1							
	05-1							
HELP	06-1							
	07-1							

• Press <1><↓><←><→> keys to move the curser, then press <**Enter**> key again to select one port.

	CURRENT SOURCE NUM:01-1 BLACK: NOT-ON-POSITION, AHITE: ON-POSITIO PLEASE AELECT: 1-KVM 2-VIDEO 3-CANCEL	N
LOG_IN	TEROE RELECT, T RUE 2 VIDEO O CRIOEE	
SOURCES	01-1 01-2 01-3 01-4 01-5 01-6 01-7	
	02-1 02-2 02-3 02-4 02-5 02-6 02-7	
CK_SET	03-1 03-2 03-3 03-4 03-5 03-6 03-7	
INFO	04-1 04-2 04-3 04-4 04-5 04-6 04-7	
	05-1 05-2 05-3 05-4 05-5 05-6 05-7	
	06-1 06-2 06-3 06-4 06-5 06-6 06 7	
	07-1 07-2 07-3 07-4 07-5 07-6 07-7	
	Page 1-3	

There are three options: press <1> key to enable KVM; press <2> key to switch the rsource; press <3> key to cancel.

VITCH SUC 2 01-3 2 02-3			

- 3、Quick switch
  - You can press **<Esc>** key to return upper menu. Press <↑><↓> keys to the **[QUICK\_SET]** option > press **<Enter**> key to enter the menu.



• Input the number of the input port. For example: if you input "01-1", the front "01" means the sequence number of slot, the "1" means the sequence number of the port (01-1 means the first port on the #1 input card, each card has 8x ports).



 Press <Enter> key, the curser will move to below options: [KVM] to enable KVM to the source; [VIDEO] to display the source; [CANCEL] to adandon the operations.



• Use < > < > < > < keys to select, then press < **Enter**> key to confirm.



4、 Device info

Press **<Esc>** key to return the menu bar > select **[DEV\_INFO]** option> press **<Enter>** key. The **[DEV\_INFO]** interface will show you the output resolution, resolution mode, audio mode, serial number, and the mac address.



#### 5、Help

Press **<Esc>** key to return the menu bar **>** select **[HELP]** option **>** press **<Enter>** key. The **[Help]** interface will show you the shortcut of OSD operation.



Enter OSD: <Ctrl + Shift + Alt + I>

Quit OSD: <Ctrl + Esc>

Move Curser: < $\uparrow$ >< $\downarrow$ >< $\leftarrow$ >< $\rightarrow$ >

Enter/quit function screen: <Enter>/<Esc>

# Preview of current status

Click **[Preview]** button to enter the preview interface. You can check the current switching and KVM status.



### Scene

You can configure some frequently-used switching relationships and save them as scenes that you want to enable only by on-click operation.

Save

• Click [Save Scene] button.



 Input Scene ID and Scene Name in the [Save Scene] window, then click [OK] button to confirm.

If you want to save the current configuration and cover that already saved, just need to set the same Scene ID.

Save Scene			×
1	Scene ID:		
	1		
	Sc <mark>en</mark> e Name:		
	scene1		
		Ok	Cancel

### Preview

You can preview the scene before recalling it to avoid misoperation.



Right click the scene > choose [Preview the Scene].

#### Recall

Right click the scene > choose [Recall the Scene] > click [OK] button to recall.



#### Rename

Right click the scene > choose **[Rename]** > input the Scene Name > click **[OK]** button to rename.

	Save Scene	× 1-3 D P (1-4) 1-4
Scene Scene Recall the Scene Preview the Scene	Scene ID: 1 Scene Name:	
<ul> <li>Review the Scene</li> <li>✓ Rename</li> <li>✓ Delete The Scene</li> </ul>	scene1	Cancel

#### Delete

Right click the scene > choose [Delete the Scene] > click [OK] button to delete.



# Port Configuration

Enter the settings to configure the property, audio mode, name and resolution of input and output ports.

### Configure ports

The matrix supports mixed I/O ports (except the 26U model), which can be defined to be input or output automatically according connection with TX (input) or RX (output).

For example: set some unconfigured ports to be input ports:

• Select one or more unconfigured ports.

⊡ DARWIN + → C □ 192	* 2.168.1.205:8080/darwin/frame/manag	e/index.html?i	r=0.703790732426568	39			ළු <b>ම <mark>—</mark>∝</b> සි ☆ :
DIGIBIRD					admir	, 👪   O	🕀   Deshboerd
	O Refresh Int Audio	III Resolutio	n			Search ports	
Config	Input ports	Select all	O Unconfigured	ports	Select all	Output ports	Select al
Lusers	(1-1) 1-1 (I) (1-2) 1-2	(Q) (a)	1-5 1-5	1-6 1-6		1-3) 1-3 ( <b>11</b> ) <b>11</b>	14 4
Backup			1.7 1.7	1-8 1-8			
①			(4-1) +-1	4-2 4-2			
Alarm Rt			(4-3) A-3	4-4 4-4			
System Upgrade			4-5 4-5	4-6 4-6			
\$			4.7 4.7	4-8 4-8			
Custom Resolution			5-1 5-1	5-2 5-2			
Factory			(c.) c.t	) (a) - a			

• Click the circle and drag to the left area.

- → C 🗋 192	2.168.1.205:8080/darwin/frame/manag	r=0.7037907324265689			<b>₽</b> ☆
DIGIBIRD			admi	n 👪   O   0	∄•   Dashboard
<u>ه</u>	O Refresh Iu Audio	III Resolution		Search ports	
Config	Input ports	Select all 🕐 Unconfigured ports	Select all	Output ports	Select all
Users	1-1 1-1 <b>(1-2)</b> 1-2		2) 4-2	1-3) 1-3 (1-4)	14 😝 🗰 🕼
Backup			4-4		
①		1-6 1-6 5 4-	6) 4-6		
Alarm		1.7 1.7 44	8) 4-8		
System Upgrade		1-8 1-8 (5-1 5-1 5-1 5-1	2) 5-2		
<b>\$</b> 8		5-3 5-3 5-	4) 5-4		
Custom Resolution		5-5 5-5 5-	5) 5-6		
Factory		(c) c) (c)			

• The selected ports will be assigned as input. (The input ports should be connected to TX later.)

DARWIN	×					é e 6 <mark>e x</mark>
← → C □ 1	92.168.1.205:8080/darwin/frame/manag	e/index.html?	r=0.7037907324265689			ೄ ☆
DIGIBIRD				ədmi	n 👪   🛈	∰•   Dashboard →
i i	O Refresh Idi Audio	III Resolutio	n		Search ports	
Config	Input ports	Select all	O Unconfigured ports	Select all	Output ports	Select all
Users	1-1 1-1 ( <b>1</b> ) (1-2) 1-2		(4-1) (4-2)	4-2	1-3) 1-3 (11) (11)	14 14
Backup	1-5 1-5 📮 🖬 1-6 1-6	<b>Q</b> (a)	(4-3 4-3 (4-4)	4-4		
() Alarm	1-7 17 📮 📾 (1-8 1-8	<b>•</b> •	(4-5) (4-6)	4-6		
۲ <sub>0</sub> ,			(47) 47 (48)	4.6		
System Upgrade			(5-1 5-1 (5-2	5-2		
8 Custom			(5-3) 5-4 (5-4)	5-4		
Resolution			(5-5 5-5 (5-6	5-6		
Factory			(c7) c7 (c8)			

*The 26U model does NOT support mixed I/O ports, the* **[Unconfigured Port**] is not applicable and it will show fixed input and output lists.

You can drag the pre-configured ports back to [Unconfigured ports] area, but the ports that have connected to the TX/RX can NOT be moved.

#### Rename the Port

Select a port > double-click in the middle area > input the name > click on the blank area or press **<ENTER**> key to save.



#### **KVM** status

Click 🥮 button of a port, then you will see the KM connection status.



### Audio configuration

The RX/Tx support audio channel. You can select embedded or separated audio channel for HDMI or SDI version:

The  $(M_{\rm e})$  icon means embedded audio, and the  $(M_{\rm e})$  means separated audio.



If you want to set multiple ports at once, you can select more ports > click Audio button > select the audio mode in the pop-up window > click [OK] to confirm the operation.

DIGIBIRD	<b>`</b>																admin	5	1	٢	1	₿	D	ashboard	>
Config	Î	O Refre	sh	Lu	Au	idio		III Resolu	ution									Search	ports						
	Ð	Input	t por	ts				Select	all	0	Jncon	figur	ed por	ls		Select a	all	Output	ports					Select a	8
Le. Users		1-1) P(	c			-2)	1-2	0		(4-1)	4	4		(4-2)	4-2		It	.3) 1-3 (1	)(	0	1-4	) 1-4 (		6	
Backup	(	1-5) 1-	5			6	1-6	<b>Q</b> In		Audio	1	a		(a.a)	44		×								
() Alarm		1-7) 1-				-8)	1-8	(Q) (b)					3 Separat	ed 🕘 Emt											
ŶĿ														Ľ	4 Ok	Cancel	1								
System Upgrade												-1		(5-2)											
8 <b>\$</b> 8										(5-3)	5	-3		(5-4)	5-4										
Custom Resolution										(5-5)	3	5		(5-6)	5-6										
Factory										67	5	-7		(t.g)											

#### Resolution

Set the Resolution

Select the output ports that you want to change the resolution > click • III Resolution button > to select resolution.

	×			14.52			
	22.168.1.205:8080/darwin/frame/mana	ge/index.html?r=0.4	406984566710889	34	admin	B   O	다   Dashboard >
	O Refresh Int Audio	2 III Resolution				Search ports	
Config	Input ports	Select all	Unconfigured	ports S	elect all 🕤	Output ports	Select all
Le Users	(1-1) PC (1-2) 1-2	00	+1 +1	4-2 4-2		a) 1-3 ( ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	4) 14 🗃 🔳 📦
Backup	(1-5) 1-5 📮 (b) (1-6) 1-6	• • • •	4-3	44 44			
	(1-7) 1-7 📮 🐚 (1-8) 1-8	• •	4-5	4-6 4-6			
Alarm		0	+7 4-7	4-8 4-8			
System Upgrade		6	(-1) 5-1	5-2 5-2			
â		0	6				

• The system support two resolution modes: Inherit and Custom. Inherit means the output resolution will be the same with that of input. Custom means to set a firmed or customized output resolution no matter how the input resolution is.

Resolution		×
Inh	erit 🖲 Custom	
Resolution:	640*480@75 <b>▼</b>	
	Ok	Cancel

• If you select the Custom option, you can choose a resolution in the drop down list. You can add a resolution if cannot find in this list. See <u>Custom Resolution</u> for details.



#### Custom resolution

To add a custom resolution.

• Click the **[Custom Resolution]** button, then you will see the built-in resolutions list.

SIBIRD										ədm	in 🚮		🕒   Dashboa
onfig	⊕ Add	🕞 Delete		Edit									
	Name	Horizon H	lorizon H	lorizon	Horizon	Active P	VSYNC I	Vertical Total (V	. Vertical Polarity	Vertical Sync W	Vertical Front Po	Active Lines	Custom Resoluti
lsers	640*480@75	840	1	64	16	640	75	500	1	3	1	480	Yes
	720*483@30	858	0	28	57	720	30	525	o	6	5	483	Yes
ckup	720*483@60	858	0	28	57	720	60	525	0	6	5	483	Yes
	720*576@25	864	0	28	57	720	25	625	0	6	5	576	Yes
	720*576@50	864	0	28	57	720	50	625	0	6	5	576	Yes
	800*600@60	1056	0	128	40	800	60	628	0	4	1	600	Yes
ktem stem	960*2160@25	1100	0	22	44	960	25	2250	0	10	8	2160	Yes
grade	960*2160@30	1100	0	22	44	960	30	2250	0	10	8	2160	Yes
ĝx	1024*768@60	1344	1	136	24	1024	60	806	1	6	3	768	Yes
stom	1024*768@75	1312	0	96	16	1024	75	800	0	3	1	768	Yes

 Click [add] button > fill in data in the pop-up window > click [OK] button to save.

IBIRD						Custom Resolution	<u>17</u>	×	admin 🚯		🕀   Dashb
onfig	1 ⊙ Add	🕞 Delete	à p	/ Edit		Horizontal Total (H.Total )	Arguments require				
	Name	Horizon	Horizon	n Horizon	Hor	Horizontal Polarity	Arguments requiri	tical Sync V	Vi Vertical Front Pc	Active Lines	Custom Resoluti
22.	640*480@75	840	1	64	1	Horizontal Sync Width	Arguments requin	3	1	480	Yes
	720*483@30	858	0	28	5	Horizontal Front Porch	Arguments require	6	5	483	Yes
	720*483@60	858	0	28	5	Active Pixels	Arguments requin	6	5	483	Yes
	720*576@25	864	0	28	5	VSVNC Frequency	Arguments requin	6	5	576	Yes
]) Iarm	720*576@50	864	0	28	5	Vertical Total (V.Total)	Arguments requin	6	5	576	Yes
	800*600@60	1056	0	128	4	Vertical Polarity	Arguments requin	4	1	600	Yes
tem 🛛	960*2160@25	1100	0	22	4	Vertical Sync Width	Arguments require	10	8	2160	Yes
grade	960*2160@30	1100	0	22	4	Vertical Front Porch	Arguments requin	10	8	2160	Yes
ĝs 👘	1024*768@60	1344	1	136	2	Active Lines	Arguments requin	6	3	768	Yes
	1024*768@75	1312	0	96	1		3 Yes Cancel	3	1	768	Yes

*Y*ou can modify or delete the resolutions that you added, but can NOT change the builtin resolution.

### Alarm

The system will provide alarm in abnormal situation for trouble-shooting.

For example, if the I/O port connected to the wrong TX/RX, the software will alarm you and guide how to solve the problem.

1、 The alarm in dashboard

The wrong connected port will be highlighted with pink and it shows the detail information in the toolbar.

DIGIBIRD	avclink					admin	r 🖓 🖗	English
	Save Scene	O Refresh	E Preview				clink 1-5 Type error ase check the input and	
	① Input port	5			Output ports		All	Select all
	1-1 1-1		) 1-2		13 13 0	1-4 1-4		
	1-5 1-3		) 1-6					
	1-7 1-7	()-	1-8	•				
	Selected KM		5					
		(1-3) (	1-4)					

2、The alarm in settings

There will be an alarm message at the bottom, on which you can click the **[Click here to config]** button to solve the problem. The system will correct the properties of the port according to TX/RX info.



### 3、Alarm log

You are able to check or filter the alarm log in the menu of [Alarm].

				2. 3.
GIBIRD	8		admin 👪   🗗	G+ Dashboard
Config	All day  * StateAlarming*  @Refresh			
20	Alarm Information	Alarm source	Alarm date	Relieved date
Users	Today 2017/08/02			
Backup	avcfink 1-5 Type error      Please check the input and output type.	AVCUnk	2017/08/02 18:58:35	
(] Alarm				
ŵ.				
System Ipgrade				
<b>\$</b> 3				
Custom Isolution				

## Users

You can add more users and setup different authorities.

#### Add a user

• Click [Users] in the menu bar.

C 192.168.1.205:8080/darwin/frame/manage/index.html?mer			٩
BIRD		admin 🚯   伊	Gr   Dash
All day ▼ State:Atarming▼ ⊡Refresh			
Alarm Information	Alarm source	Alarm date	Relieved d
Today 2017/08/02			
avcfink 1-5 Type error     Please check the input and output type.	AVCUnk	2017/08/02 18:58:35	
ም ade			
8			
om ution			
ary 👔			

- Click Add button to open the [add new user] window.
- Fill in the user info > click **[OK]** button to confirm.

Add new u	ıser		×
	Full Name:		
	user		Optional
	Account ID:		
	user		
	Password:		Required
	Phone:		
	Email:		Optional
	Availability:		
	⊛Yes ⊚No		Required
		Yes	Cancel

• The added user information will be shown in the list.

Account ID	Full Name	Email	Phone	Availability
admin	admin			Yes
user	user			Yes

#### Authorities

You can distribute different authorities for different account.

1. Select one account > click Authorities button to open the [Authority] window.

#### Menu authorities

Click **[Menu]** button to set the software operating rights. For example, if you want to prohibit the <u>Config</u> and <u>Users</u> function for the "user" account, you should operate as follows: Set the **[Home Page]** and **[Setup Menus]** to be **Enable** > Set the **[Config]** and **[Users]** to be **Disable** > Click **[Save]** button to confirm.

-	AVCLink			
	uthority	View		
1.	🖌 😋 Home Page	© Enable ® Disable		
2	AVCLink	Enable Disable Inherit		
з.	a 😋 Setup Menus	© Enable ® Disable		
4	Config	Enable Disable Inherit		
5	🔺 😋 Users	Enable     Disable     Inherit		
5	a 😋 Authorities	Enable Disable Inherit		
7	Permissions Saved	Enable     Disable     Inherit		
3	Delete User	○ Enable ○ Disable ● Inherit		
9	🖹 Add User	○ Enable ○ Disable ● Inherit		
0	🖹 Edit User	○ Enable ○ Disable ● Inherit		
		Sa	ve	Disable

Mei	u AVCLink		
1	Authority	View	-
1	🖌 😋 Home Page	● Enable Disable	
2	AVCLink	Enable Disable Inherit	
3	🖌 😋 Setup Menus	Enable     Disable	
4	Config	◎Enable●Disable◎Inherit	
5	🖌 😋 Users	Enable®Disable®Inherit	
6	a 😁 Authorities	Enable Disable Inherit	
7	Permissions Saved	◎Enable◎Disable●Inherit	
8	🗎 Delete User	Enable Disable Inherit	
9	🗎 Add User	Enable Disable Inherit	
10	Edit User	○Enable Disable Inherit	

#### **Input Source authorities**

Click **[AVCLink]** button to set the input source authorities. For example, if you do not want the "user" account to operate the **[1-2]** and **[1-6]** input source, you should operate as follows: Set the **[Input ports]** to be **Enable** > Set the **[1-2]** and **[1-6]** to be **Disable** > Click **[Save]** button to confirm.

Men	u AVCLink	
1	Authority	View
1	🖌 🗁 Input ports	Enable
2	🗎 [PC]	◎ Enable ● Disable ● Inherit
3	🗎 [1-2]	Enable Disable Inherit
4	[1-6]	Enable     Disable     Inherit
5	🗎 [1-7]	◎ Enable ◎ Disable ● Inherit
6	[1-8]	◎Enable Disable Inherit
6		●Enable Disable Inherit
		Save Dis

uthority	View
😋 Input ports	● En able
[PC]	Enable     Disable     Inherit
[1-2]	○Enable●Disable●Inherit
[1-6]	○ Enable ● Disable ● Inherit
■ [1-7]	Enable     Disable     Inherit
[1-8]	Enable     Disable     Inherit
	<ul> <li>[PC]</li> <li>[1-2]</li> <li>[1-6]</li> <li>[1-7]</li> </ul>

The explanation of three levels are as follows:

Enable The user will be permitted to user have this authority.
Disable The user will be NOT permitted to have this authority.
Inherit The permission will be decided by the status of the upper level or menu. For example, the status of [Users] is
Inherit, so it will be Enable when the [Setup Menu] is
Enable, and will be Disable when the [Setup Menu] is
Disable.

 Using the "user" account to login, you will see the differences between "admin" and "user": there is no the [Users] option in the menu bar on the dashboard, and the user can't operate the [1-2] and [1-6] resources.



### Edit

- Choose an account.
- Click Letter button.
- Fill in the new information in the pop-up window.
- Click **[OK]** button to confirm.

DARWIN	×			
← → C D	192.168.1.205:8080/darwin/frame/manage/i	ndex.html?r=0.5185995271895081		ଷ ପ୍ର ≡
DIGIBIRD				⊕   ⊕   Deshboard >
Config	Add  Add mobile user	Update the user account.	X Q Search	
22	Account ID	Fu Full Name: 3	Phone	Availability
Users	admin	user		Yes
	user	Password:		Yes
Backup				
202.1		Phone:		
(]) Alarm	1	Email:		
ŶĿ		Availability:		
System Upgrade		@Yes ONo		
<b>\$</b> 3		4 Ves Cance		
Custom		4 Yes Cance	e	
Resolution				
Factory				

#### Delete

- Choose an account.
- Click ODelete button.
- Click **[OK]** button in the pop-up window to confirm.

DARWIN	×						
← → C 🗋 192	2.168.1.205:8080/darwin/frame	/manage/index.html?r=0.518599	5271895081				ងជ
DIGIBIRD				admin	5		Dashboard
Config	Add 🕀 Add mobile u	ier 🖌 Edit 🖉 Delete	L Authorities	ser name Q Search			
	Account ID	Full Name	Email	Phone		Availability	
Users	admin	admin				Yes	
	user	user				Yes	
Backup		Message		×			
		0	Are you sure to delete the use	0			
Alarm		U					
Ω,			3 OK	Cancel			
System Upgrade							
8 Custom							
esolution							
Factory							

# Backup and Restore

You can save the system configuration as backup file to the Matrix or PC in case of losing the configuration. The backup can be restored at any time.

### Backup

• Click the [Backup] button in the menu bar.

C DARWEN ← → C □ 192.	*				le	। विकि <b>ग</b> दि <b>ग</b>
DIGIBIRD		admin	B			Deshboard
Config	(② Bucking Betz → Bertere X Editer ↓ Freedient ↑ Tylind & Bertere					
Lisers	Backap Tine				Backup Type	
Backup						
() Alarm						

• Click Deckup Data button to backup the hardware and software configuration, and the backup file will be stored in the matrix.

DARWIN	x	
← → C 🗋 192.1	58.1.205:8080/darwin/frame/manage/index.html?r=0.5533876798581332	% ಭ ≡
DIGIBIRD	admin 题	①   ᠿ   Dashboard >
Config	Studey Data Statues A Sectors Tyled & Asstore	
<u>.</u>	Backup Tine	Backup Type
Users	2017-08-02 19:59:01	User
Backup		
() Alarm		
<b>Ç</b> System Upgrade		
Custom Resolution		
Factory		

Select a backup file in the list, then click 
 Pownload
 button to download it to PC.

C □ DARWIN ← → C □ 19	× 2.168.1.205:8080/darwin/frame/manage/index.html?r=0.5533876798581332	e • • • • • • • • • • • • • • • • • • •
DIGIBIRD		admin 🐻   🛈   🕀   Dashboard :
	③ Stating Tets ● Instance ★ Salarce ↓ Standard ↑ Splend & Restore	
<b>Le</b> Users	1 Juckay Time 2017-09-02 19192-01	Backup Type Name
Backup	Download	
() Alarm		-08-02 19:59:01)
रि) System		
Upgrade 8		
Custom Resolution		
Factory		

**1** The AVCLink is able to backup data every day automatically and keep for 7 net days one time. The data on the 1<sup>st</sup> day will be displaced on the 8<sup>th</sup> day.

#### Restore

1. Restore the Matrix configurations.

Select a backup > click Sectore button.

DARWIN	×			
$\leftrightarrow \Rightarrow  G$	192.168.1.205:8080/darwin/frame/manage/index.html?r=0.5533876798581332			•ಿ ಭ ≡
DIGIBIR	D	0		Deshboard
Config	O fuelog into Physical Alexand			
Let Users			Backup Ty Vsar	
Backup	Confirm ×			
(!) Alarm	Are you sure to restore the backup data?2017-08-02 19:59:01 ? Note: The system will restart, please login again.			
रि) System Upgrade	3 Ves Cancel			
Custom Resolution				
Factory				

2. Restore the PC configurations.

Click **Please choose a file**] button in the pop-up window > select a file that already stored before > click **[Upload]** button to restore the configuration.

Uploa	ad & Restore	×
	Please choose a file. Upload	
	0%	

3. The restore process

The screen will display a processing page when the system restoring. It is about 2 minutes to complete.

Starting Darwin. ×	×
🗲 🤿 🖸 192.168.1.205:8080/darwin/frame/manage/index.html?r=0.605561.372358352	☆ =
Loading	
. Coulding	
Starting Darwin	
Starting Darwin	

# Upgrade

Select and upload the upgrade file to complete. The user is able to request the latest firmware from your sales or contact our team at <u>sales@digibirdtech.com</u>.

- Enter the settings > click the [System Upgrade] button in the menu bar.
- Click [Please choose a file] button to add a file.
- Click [Upload & Upgrade] button to confirm upgrading.



# **Factory Configuration**

You can set the Factory Configuration if need, including Running Rate (Only the 4K device), Single Fiber Mode (When there is no need of KVM function), Default configuration (Eliminate all user configurations).

→ C 11	92.168.1.205:8080/da	nwiny name/mana	ige/index.numi	1-0.333333386710	243000				<b>%</b> ☆
							admin 🗒	©	🕒   Dashboard
Users	Speed Config 6.4G 🔹	Reset Data							
					Single fiber config	1			
Backup	Card\Channel	1	2	3	4	5	6	7	8
(!)	1			0	0	0	0	8	
Marm	2	8			0	0	0	0	0
~	3			0		0		0	
stem	4	0		8	0	0		0	0
stem grade	5	0			0	0		0	8
₿8	6					0		0	
ep itom	7	0		8				0	
lution	8			0	0		0	8	0
2	9								8
껃 tory	10	8	8				0	8	0
onfig	11		0	0		0		0	0
	* 2	-		-	Ok	-	-	-	

#### Running Rate

If your Optic Transfer Unit support 4K, you can set the running rate to be 6.4G (Supports 4K) or 3.2G (Supports 1080P).



#### Single Fiber Mode

Each I/O card consists of 8x dual optical ports to transmit video and KM (control) signal via 2x pcs single mode fiber cables. If you don't need to use KM feature, you are able to use the dual optical ports to transmit 2x video signals in which one is input and the other is output, hence to make the I/O quantity double.

Operation as follows:

- 1. Select the ports which you want to change to be single mode;
- 2、 Click [OK] button at the bottom of the page.

3、Click [OK] button in the pop-up window to confirm. The system will restart and eliminate all the configurations you set before.

⇒ C □ 1	92.168.1.205:8080/	darwin/frame/m	anage/index.htr	nl?r=0.913513236	9119674					<b>%</b> ☆
GIBIRD	ς.							dmin 👪	©	⊕   Dashboard :
Users	Speed Config 6.4G	Reset Data								
					Single fiber con	fig				
ackup	Card\Channel	1 1	2	3	4		5	6	7	8
()	1		ø	2	8		ø			8
Alarm	2	8	8	8	0		0		8	0
~	3	8	0	Message			×			0
Ŷ	4	0	8	This action will reset data		tion will reset data and restart the server ,		0		0
ystem pgrade	5	0	8	U	would you like to proceed ?		d ?	8	8	0
\$3	6	0	8			3 Ok	Cancel	8	0	
o <del>yo</del> ustom	7			8			0		8	
olution	8	0		8	0			- 0		8
2	9	0	8	8	0		0	0		
	10	8	0	8	0		8		8	8
Config	11			8					0	
	*2				2 ok	_				

4. After the system restart, you can see the configured single ports with single mode in the **[Input Ports]** and **[Output Ports]** list.

							admin	60	() ()	English •
B fast frank	O Refeat	E Daview				Caserb pr	de			
	ASSESSION - STOL	64 - Hanne		0	stput ports	Line in	99			Select all
1-1 1-1		1-2		(1-1)	1-1		1-2			
13 13	14	1-4	).	1-3	1-1	14	1-4			
1.5 1.5	16	1-6		1-5)	1.5	1-6	1-6			
1.7 1.7	1-8	14		(1-7)	1-7	1-8	1-8			
	(1) 14 (1) 13 (1) 15	Input ports           (1-1         1-3         (1-2)           (1-3         1-3         (1-4)           (1-5)         1-5         (1-4)	Input ports           13         1.3         1.4         1.4           13         1.5         1.6         1.4	Input ports           1-1         1-2         1-2           1-3         1-3         1-4         1-4           1-3         1-5         1-6         1-4	Input ports         D           (1-1)         (1-2)         (1-3)           (1-3)         (1-4)         (1-4)           (1-3)         (1-4)         (1-4)           (1-3)         (1-4)         (1-4)           (1-3)         (1-4)         (1-4)           (1-3)         (1-4)         (1-4)           (1-3)         (1-4)         (1-4)           (1-3)         (1-4)         (1-4)	Input ports         Dutput ports           1-1         1-2           1-3         1-4           1-5         1-5	Dutput ports         Dutput ports           13         13         14         14         13         14 </td <td>Input ports         Dutput ports           1-1         1-2           1-3         1-4           1-3         1-4           1-3         1-4           1-5         1-6           1-6         1-6</td> <td>Imput ports         Dutput ports           13         13         14         12         13         14         12         12           13         15         14         14         14         14         14         14</td> <td>Input ports         Dutput ports           13         13         14         14         13         14         15         14         14         14         15         14         14         14         15         14         14         14         15         14         14         14         15         14         14         14         14         14         14         15         14</td>	Input ports         Dutput ports           1-1         1-2           1-3         1-4           1-3         1-4           1-3         1-4           1-5         1-6           1-6         1-6	Imput ports         Dutput ports           13         13         14         12         13         14         12         12           13         15         14         14         14         14         14         14	Input ports         Dutput ports           13         13         14         14         13         14         15         14         14         14         15         14         14         14         15         14         14         14         15         14         14         14         15         14         14         14         14         14         14         15         14

### Factory config

You can reset the factory settings:

- 1. Click **[Reset Data]** button in the **[Factory Config]** page.
- 2、Click the **[OK]** button in the pop-up window to confirm.

→ C 🖸 1	92.168.1.205:8080/da	rwin/frame/man	age/index.htm	nl?r=0.593457	612907514							_	•☆
GIBIRD								admin	<b>5</b>	٢	6	₽   ¤	ashboard
Jsers	Speed Config 6.4G •	Reset Data											
					Single fiber of	onfig							
ckup	Card\Channel	1	2	3	4		5	6		7		8	-
1	1	0			0		8			0			
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# Appendix

# Glossary

The following terms are commonly used in this manual or in video and KVM technology.

Explanation
Means the transmitter (TX) and receiver (RX) to connect with the ma- trix input and output.
Single-mode or multi-mode fiber cables.
The Receiver connected to the monitor, keyboard, mouse and Matrix.
The Transmitter connected to the source (video, audio and USB) and
Matrix.
Keyboard, Video and Mouse.
The On-Screen-Display control method to operate the device.
A VESA standardized interface for an all-digital transmission of audio
and video data. It is differentiated between the DisplayPort standards
1.1 and 1.2. The signals have LVDS level.
Digital video standard, introduced by the Digital Display Working
Group. Single Link and Dual Link standard are distinguished. The sig-
nals have TMDS level.
An interface for an all-digital transmission of audio and video data. It
is differentiated between the HDMI standards 1.0 to 1.4a. The signals
have TMDS level.
A non-standard plug connection for transmission of electrical audio
and video signals, especially with coaxial cables.
Video Graphics Array (VGA) is a computer graphics standard with a
typical resolution of 640 x 480 pixels and up to 262,144 colors. It can
be seen as a follower of the graphics standards MDA, CGA and EGA.



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