LINDY

12 Slot Seamless Modular Matrix & Modular Boards

User Manual

English



lindy.com

Introduction

Thank you for purchasing the 12 Slot Seamless Modular Matrix and supporting AV boards. This product has been designed to provide trouble free, reliable operation. It benefits from both a LINDY 2-year warranty and free lifetime technical support. To ensure correct use, please read this manual carefully and retain it for future reference.

The Lindy 12 Slot Seamless Modular Matrix is a powerful AV device that creates flexible, centralised installations in a variety of environments. With fully customisable configurations of HDMI and HDBaseT boards possible, from 1x11, 6x6, 8x4 and more, this solution can be tailored to meet the requirements of any installation within education, hospitality, corporate or government sectors.

Safety Information

! WARNING!

Please read the following safety information carefully and always keep this document with the product.

Failure to follow these precautions can result in serious injuries or death from electric shock, fire or damage to the product.

The device works with a high voltage of up to 230 VAC (North Americas: 120 VAC).

Touching the internal components or a damaged cable may cause electric shock, which may result in death.

To reduce risk of fire, electric shocks or damage:

- Do not open the product. There are no user serviceable parts inside.
- Qualified servicing personnel must only carry out any repairs or maintenance.
- Never use damaged cables.
- Do not expose the product to water or places of moisture.
- This product is intended for indoor use only.
- Do not place the product near direct heat sources. Always place it in a well-ventilated place.
- Do not place heavy items on the product or the cables.

Package Contents

38350

- Seamless Modular Matrix Chassis
- Country Specific AC Power Cord, 1.2m
- IR Extension Cable, 1.2m
- 4 x Phoenix Connectors (Male) to 3.5mm, 2 Pins
- 4 x Phoenix Connectors (Male) to 3.5mm, 3 Pins
- 12 x Phoenix Connectors (Male) to 3.5mm, 5 Pins
- 2 x 3U Mounting Brackets
- IR Remote with CR2025 Battery
- This manual

38351

HDMI Type A (Female) Input Board

38352

HDMI Type A (Female) Output Board

38353

HDBaseT Input Board

38354

HDBaseT Output Board



English

English

User Manual

Features

- 12 Slots for flexible input & output configurations:
 1x11, 2x10, 3x9, 4x8, 5x7, 6x6, 7x5, 8x4, 9x3, 10x2, 11x1
- In-built scaler for each output (Please see Specifications for supported resolutions)
- Instant seamless switching of signals in less than 0.1ms
- Support 18G resolutions up to 4096x2160@60Hz 4:4:4 8bit on HDMI Input & Output boards
- Supports 10.2G resolutions up to 4096x2160@60Hz 4:2:0 8bit on HDBaseT Inputs, 4096x2160@30Hz 4:4:4 8bit on HDBaseT Outputs
- Transmit signals up to 100m via HDBaseT over Cat6a/7 cable, and up to 70m over Cat5e/6 cable
- Input board's feature analogue audio embedding
- Output boards feature analogue and digital audio de-embedding
- Supports Ethernet routing to all boards
- Front panel push button, IR, RS-232 & LAN Control
- Bi-directional RS-232 & IR control over HDBaseT
- Advanced EDID Management by Web-Gui & Dipswitch

Specification

- Supported scaling video outputs:
 - 1024x768@60Hz
 - 1280x720@60Hz
 - 1280x800@60Hz
 - 1600x1200@60Hz
 - 1920x1080@60Hz
 - 1920x1200@60Hz
 - 3840x2160@30Hz
 - 3840x2160@60Hz
- Supported output audio formats:
 - HDMI Audio Pass-through
 - Digital Audio up to PCM 2.0
 - Analogue Audio up to PCM 2.0
- Operating Temperature: 0°C 45°C (32°F 113°F)
- Storage Temperature: -20°C 70°C (-4°F 158°F)
- Humidity: 10 90% RH (non-condensing)
- Power Requirements: AC 100~240V 50/60Hz
- Power Consumption: 130.5W 135.6W
- Mounting Rack Space Required: 3U
- Colour: Black
- Housing Material: Metal

Installation

The Lindy 12 slot modular matrix may require significant assembly depending on your chosen installation. Please ensure this is undertaken by qualified personnel, while also ensuring the appropriate safety steps are taken to avoid any static discharge. Please install all required boards prior to connection of power. If adding or removing any boards, please power the unit down and unplug as this chassis is not hot pluggable. We also advise that any terminal connections are ran and terminated in advance of connecting power.

Please ensure all connected source devices, display and other equipment are powered down before making any connections.

Once the desired layout of boards is fitted please follow the guide below for installation:

- 1. Connect an HDMI source device or HDMI equipment to the HDMI Input port of the Input board using HDMI cable.
- 2. Connect HDBaseT transmitters to the HDBaseT input ports of the HDBaseT input boards using Cat.X cable.
- 3. Connect an audio device to the analogue audio input ports on the input boards for audio embedding.
- 4. Connect an HDMI display, projector or devices to the HDMI output port of the out board using HDMI cable.
- 5. Connect HDBaseT receivers to the HDBaseT output ports of the output boards using Cat.X cable.
- 6. Connect digital and/or analogue audio devices to the audio output ports on the output boards for audio de-embedding.
- 7. Connect the country specific AC power cord and power on the matrix by pushing the Power button on the front chassis panel. The front panel LED will show Lindy 38350 for around 5 seconds, then show IIIIIII0000 and 1~12 in alternate patterns in intervals of 2 seconds. The LEDs will then show the configuration of the input & output boards. The matrix is now ready for operation.
- 8. Switch between sources and displays using the various methods of switching. For a detailed manual on these methods please see the manual on your local Lindy website.
- 9. If using the IR extension, please connect IR receiver cable to the IR Extension port of the chassis and ensure the eye is in clear line of sight.

Please note: 1-12 is red from left to right on both the front and rear of the chassis. 1 on the front panel label will correspond with the 1st empty slot on the rear of the unit. On the LED panel, No.1 will always represent the first connected board when viewing from the left of the rear of the unit. If this board is removed, NO.1 will become the next connected board.

Installation of the mounting handles

- 1. Remove the four screws from either side of the top panel.
- 2. Remove the four screws from both side panels which lock the power bracket into place.
- Move the power bracket slightly to the position shown here (->). This will allow easier access when removing the ethernet connection in a later step.
- Remove the connector that is housed between the main PCB and power board. Please see here (->) for more information.
- 5. Remove the power board bracket by tilting to one side gently.
- 6. Remove the ethernet connection as shown here (->).
- Lock the handles at either side of the front panel using screws in the places shown here (->).
- 8. Refit all removed parts securely.





Chassis & Board Layout

38350 - Chassis Front Panel



- 1. Input LED Indicator The LED screen will indicate the inserted input board status when powered on.
- 2. Output LED Indicator The LED screen will show the input channel number selected for each output
- 3. IR IR Receiver Eye
- 4. Input & Output Select Button Select the input & output channel. The Left & Right button can select the output. Up & Down can select the input.
- 5. Enter Button Press the enter button to select the specific input and output.

38350 - Chassis Rear Panel



- 1. RJ-45 (Female) Port LAN Connection for control systems via Web Gui & Telnet.
- 2. RS-232 Connect to control systems for RS-232/API control.
- 3. IR Extension Connect an IR receiver for IR control
- 4. IEC C14 (Female) Connect to AC 100~240V 50/60Hz power.
- 5. EDID Dipswitch Provide manual EDID Management (See EDID management section of this manual for further information)
- 6. Power Press the power button to turn on or off the modular matrix

English

38351 - Single Port HDMI 18G Input Board

- 1. HDMI (Female) Port Connect a HDMI source device or HDMI equipment via HDMI cable
- 2. Audio Embedding Terminal Block Connect an audio device to embed audio over HDMI



38352 – Single Port HDMI 18G Output Board

1. HDMI (Female) Port – Connect a HDMI display or HDMI equipment via HDMI cable

2. Audio Terminal Blocks – Connect analogue audio equipment including amplifiers or speakers for audio extraction

3. SPDIF – Connect digital audio equipment including amplifiers or speakers for audio extraction

38353 – Single Port HDBaseT Input Board

- 1. RJ-45 (Female) Connect a HDBaseT Transmitter via Cat.x cable
- 2. IR Terminal Blocks Connect an IR cable for independent IR control of this board
- RS-232 Terminal Blocks Connect an RS-232 cable for independent RS-232 control of this board
- 4. Audio Embedding Terminal Blocks Connect an audio device to embed audio over HDBaseT





38354 – Single Port HDBaseT Output Board

- 1. RJ-45 (Female) Connect a HDBaseT Receiver via Cat.x cable
- 2. IR Terminal Blocks Connect an IR cable for independent IR control of this board

3. RS-232 Terminal Blocks – Connect an RS-232 cable for independent RS-232 control of this board

4. SPDIF (Female) Blocks - Connect an audio device to de-embed audio from HDBaseT to digital audio devices

5. Audio De-Embedding Terminal Blocks - Connect an audio device to de-embed audio from HDBaseT to analogue audio devices



Control Options

Please note: many of the following settings & images are based on an example of 8 Inputs and 4 Outputs, however this will change to match your chosen configuration

Front Panel Control

The chassis' front panel can provide simple manual push button control. Please follow the steps below for controlling via this method.

The LEDs will indicate the connected inputs or outputs.

- Press the Left or Right push buttons to select the connected output device, and press enter to select a connection. Once complete the corresponding LED of the output will blink slowly. When an output is switched off the LED will display "—"
- 2. Press the Up or Down buttons to select the connected input channel. Press enter to confirm your selection, once this has been confirmed the LED will stop blinking

IR Control

The included IR Extension cable can provide simple IR control over the entire installation. Please ensure the IR eye is in clear line of sight of the included remote.

Each individual HDBaseT board can also be controlled and integrated into the users control systems via IR by creating the Terminal block IR cable using the following instructions and Pin Out.

Wiring and Connections

IR Wiring				_	IR Receiver
IR connections are made using a 3-pin Control Connector supplied with the device. The wire slips into the hole and locks with a screw located at the top of the connector.					
IMPORTANT: IR Wiring Processitions	PIN 1	Not Used	10.000		
Ensure that all IR emitters are within 15 feet	PIN 2	IR +	5 6 6 5		NC
(4.6 meters) from the controller's location.	PIN 3	IR -	and a set	G(IK-)	
Use of 3rd party blinking IR emitters with Talk Back is not recommended. These types of voltage away from the IR signal that can deg	of emitt rade IR	ers can draw performance.		τυο	(IR+)

Web-Gui Control

The seamless modular matrix provides an intelligent Web-Gui for changing settings and control of the installation. The Web-Gui software can be accessed via the Lindy website under Downloads. To access the Web-Gui

1. Connect the matrix to a LAN switch or PC using a Cat.x cable to the LAN port of the chassis.

2. Type the following IP address into your web browser: 192.168.10.254

Please note: the LAN switch or PC must use the IP address within the same IP segment as the matrix Please ensure the web browser being used is the latest version

- Once the logic screen appears, please choose English. The default IP address 192.168.10.254, Subnet mask is 255.255.0.0, the default password is admin.
- The main Web-Gui screen should now appear with 2 submenus: Matrix Control & Admin Setting

	1	English	中文	
Password:			Login	
	Remo	ember Password		

665				Matrix Control	Admin Se
ch					
InputsiOutputs	Output 1	Output 2	Output 3	Output 4	All
Input 1	•				
Input 2		•			
Input 3			•		
Input 4				•	
Input 5					
Input 6					
Input 7					
Input 8					
None				0	
eta Preset Serve	1	Preset 2	Freset 3	Loed Save	Preset 4
Preset	5	Preset 6	Preset 7	Land	Preset 8

Using the Web-Gui

The Matrix Control submenu will have its own options as followed:

- Switch
- Pre-set

Switch

This option allows for the user to manage the configuration of the connected displays and source devices.

Inputs\Outputs	Output 1	Output 2	Output 3	Output 4	All
Input 1	٥				
Input 2					
Input 3					
Input 4					
Input 5					
Input 6					
Input 7					
Input 8					
None					

Using this layout, the user can create specific combinations of source devices and displays.

Firstly, click the white button of the input or output to select, this will then turn blue. This represents that the input and output are routed.

All – Routes all outputs to one input None – Turn off the outputs

Pre-set

Presets			
Preset 1	Preset 2	Preset 3	Preset 4
Save Load	Seve Load 5	Load	Seve Load
Preset 5	Preset 6	Preset 7	Preset 8
Save Load	Save Load S	lave Loed	Save Load

Specific Input & Output configurations can be saved as pre-sets and stored on the matrix for future use. Save – Save the selected configuration of the Switch submenu. To save, press the window in the upper right corner.

PRESET SAVED

Load – Load a pre-set configuration

Admin Settings



The default password for the Admin Settings is 123456

The admin setting submenu allows the user to perform and control the following

- CEC Setting
- Resolution Setting
- Audio Input Settings
- Port Naming
- Pre-set Naming
- Network
- Change Password
- Update Web-Gui
- Log
- Customise the Web-Gui Logo
- Reset all settings to Default
- Firmware Settings

Preset Name	English 中文 Matrix Control Admin Setting
Preset 1 Preset 2 Preset 3 Preset 4 Preset 4	CEC Setting EDID Setting
Save Roset Save Roset Save Roset	
	Output 1 V
	CEC Control Display On Display On Enter
Save Resol Save Resol Save Resol	Auto Leo Comroi 2 (1-30Minutes) La OFF
Note: The length of name is limited to 15 characters (only letters, numbers or space- car't included punctuation) each.	
Nderd	Resolution Setting
State IP	Output 2 v
DHCP IP Address: 192, 158, 10, 254	Resolution 3840x2160ge0 v
Butic Default Galeway: 102 106 10	Resolution Read
	Output 1 Display not detected Output 2 Fix 3840x2160@60
Note: Matrix LAN Module will automatically reboot after changing Network setting. Apply	Output 3 Display don't support current resolution Output 4 Auto 3840x2160@60
Change Password	rofresh
Login Password Admin Setting Password	Aside Jacob Rolling
Old Passeord Cld Passeord Cld Passeord	Autor input Setting
Nex Password III New Password III	Input 1
Corfen New Password	Audio Input Select HDMIHDBT V
Seve Seve	Audio Input Status HDMIHDBT
Note: Pasteord must be 4 to 16 characters in length (alphanumeric only)	Port Naming
Lipidale Web Lit	Input 1 Input 1 Output 1 Output 1
Browse Draw	limit 2 Invet 2 Output 2
typenie Note: LAW klobule will update and reboot automatically. Prease wat about 3 minutes, then refresh and login again.	Inter 2 Inter 2
Co-notposer of the name when updating.	input s input s Couput s
	Input 4 Output 4 Output 4
Custom Web UI LODO Reset Al Setting To Default	Input 5
Reset To Defaults.	Input 6 Input 6
See Settings Load Settings	Input 7 Input 7
ponte i nov men opnose en menge ni ninov refinidi kitin a mesulution is mes man singing. plonte.	Input 8 Input 8
Firmare	Note: The length of name is limited to 15 characters (only letters, numbers or space + can't included punctuation) each
Web UT V1.03 MCU	Save Reset

CEC Setting

Select the Output drop down menu to the select the output to control.

Select Display On to send a CEC command to power on the selected display

Select Display Off to send a CEC command to power off the selected display

Select Auto CEC Control to create a set automatic power off time for the display (1-30Minutes) Select Off to switch off the Auto CEC Control function

Please note: this function is only available for displays and output devices that support CEC control

EC Selling	
Output 1	v
CEC Control	Display On Display Off
Auto CEC Control	2 (1-30Minutes) OFF

EDID Setting

The EDID settings allow the user to access and configure the EDID of each input connection



Please select enter to access these settings

Input 1 4K@60Hz 2.0CH Audio	Apply	Input 2 4K@60Hz 2.0CH Audio	 Apply
Input 3 4K@60Hz 2.0CH Audio	• Apply	Input 4 4K@60Hz 2.0CH Audio	Apply
Input 5 4K@60Hz 2.0CH Audio	• Apply	Input 6 4K@60Hz.2.0CH Audio	Apply
Input 7 4K@60Hz 2.0CH Audio	Apply	Input 8 4K@60Hz 2.0CH Audio	- Apply

Using the drop-down menus, the EDID settings can be changed. Select Apply to set the chosen EDID.

Resolution Setting

This setting allows the user to set the output resolution.

Within Resolution Read, select refresh to view the current resolutions of the outputs. Using the drop-down menu, the user can select the desired output resolution.

	Output	2	×
P	esolution	3840-2160	@10 v
Resolution Read			
Output 1	Display not detected	Output 2	Fix 3640x2160@60
	Pinelay deal suggest conset suggistion	Output 4	Auto 3540x2150/060

Audio Input Setting

This setting allows the user to control which audio is embedding via the input. Using the drop-down menu, the user can select audio pass-through via the input connection or Audio In via the audio port.

Audio Input Setting	
Input	1 N
Audio Input Select	HOMINDET
Audio Input Status	HOMIHOET

Port Naming

This setting allows the user to customise the naming of both inputs and outputs.

Once amended, select Save to save any changes, or Reset to reset the names to their factory naming i.e. Input 1

Port Naming				
Input 1	Input 1	Output 1	Output 1	
Input 2	Input 2	Output 2	Output 2	
Input 3	Input 3	Output 3	Output 3	
Input 4	Input 4	Output 4	Output 4	
Input 5	Input 5			
Input 6	Input 6			
Input 7	Input 7			
Input 8	Input 8			
Note: The length of name is limited	d to 15 characters (only letters,	numbers or space, can't included punctuation) each.	Save	Reset

Please note: The naming for each port can exceed 15 characters

Pre-set Naming

This setting allows the user to customise the naming of the saved pre-set configurations Once amended, select Save to save any changes, or Reset to cancel the previous change. Reset All will cancel all changes.

Preset 1	Pres	et 2		Preset 3			Preset 4	
Save Reset	 Save	Reset	•	Save	Reset	Save	Reset	•
Preset 5	Pres	et 6		Preset 7	יר 🗆		Preset 8	
Preset 5 Save Reset	Seve	et 6 Reset		Preset 7	Reset	Save	Preset 8 Reset	

Please note: The naming for each port can exceed 15 characters

Network

This matrix can be controlled via Lan through Telnet. The default IP address for matrix access is 192.168.10.254.

Select DHCP to allow the unit to automatically detect the IP address.



Select Apply to save any changes.

Please note: The Matrixes' LAN module will auto reboot after changing the Network settings. Set Static IP:

Please note: the IP address and gateway should be set up on the same segment of the network If an IP address is not automatically detected, select Static to manually input the IP functions. Enter the IP address ensuring it is in the same subnet segment and the PC.

DHCP	Static IP IP Address: 102 . 168 . 10 . 254 Subnet Mask: 255 . 255 . 0 . 0 Default Gateway: 192 . 168 . 10 . 1
Note: Matrix LAN Module will automatically reboot after changing Network setting.	Apply

Select Apply to save any changes.

Please note: The Matrixes' LAN module will auto reboot after changing the Network settings. Set Static IP:

Change Password

This setting allows the user to modify the Login Password and Admin Setting password/

Login Password		Admin Setting Password	
Old Password		Old Password	
New Password		New Password	
Confirm New Password		Confirm New Password	
	Save		Save

The default Login password is admin. The default Admin Setting password is 123456. Select Save to save any changes.

Please note: any new password must be between 4-16 characters in alphanumeric characters only. Please note: If the password has been forgotten, please use the Web-Gui or API command to reset the matrix to factory settings.

This can be done by running the Web-Gui tool, highlighting and selecting the matrix. The select device from the side panel and click factory default. Select Y in the pop window to restore the matrix to factory default settings.

Update Web-Gui

This setting allows the user to update the Web-Gui.



Select Update. This will take around 2 minutes to update.



Please note: the matrix will update and reboot automatically. Please wait around 3 minutes then refresh and log in again to the settings. Please do not power off the matrix while updating.

Log

This setting allows the user to hide or show the log on the bottom of the page



Custom Web-Gui Logo

Custom Web UI LOGO	
	Browse
	Apply
	Clear
Note: You must upload an image in PNG format with a resolution is less than 512x62 pixels.	

This setting allows the user to customise the Web-Gui logo to suit their setup or brand. Select Browse to search for a logo file.

Please note: The uploaded image must be in a PNG format with a resolution of 512x62p.

Select Apply. This will trigger a pop-up window. Please select "here". The logo will then be set to the upper left corner.



Reset All Settings to Default



Save Settings: Select to save the current settings and download to a local folder on the PC.

Load Settings:

After resetting to the default setting, select Load Settings to upload the settings that were previously saved to a local folder.

Select Reset to Default and then Ok on the pop-up window. The matrix is now reset to factory default settings.

Please note: The matrix will automatically reboot and reset all settings to the factory default.

Firmware

This setting allows the user to check the firmware version.

RS-232/API Control

Please follow the general setup rules for RS-232 control

- Command strings typically are not case-sensitive
- All command strings must end with the Take command "T" which will tell the system to execute the command.
- "O" is the letter O, not the number zero (0)
- Entering "X" at any point in a command string cancels the command.
- A command cannot be cancelled after the "T" has been entered.
- Command strings cannot be edited. If a mistake has been made, enter an "X" and then re-enter the command.
- To specify multiple outputs, inputs, levels, or local pre-sets, enter a space "" between each number. Multiple inputs are only valid in Disconnect commands.
- To specify a range of outputs, inputs, or local pre-sets, insert a colon ":" between the lowest and highest numbers of the range (not supported if the command is otherwise invalid, e.g., cannot specify a range of inputs in a Change command; the first input only would be routed.).
- Colons ":" and spaces "" can be used in the same command string.
- If the level designation "L" is omitted, the command is executed on the default level, which is normally Level 0."

Default RS-232 Settings

The default setting for RS232 port are:		
Parameters	Value	
Baud Rate	9600 bps	
Data bits	8 bits	
Parity	None	
Stop bits	1 bit	
Flow control	None	

Command Instructions

SET SW In Out (CR/LF):

- 1: [SET SW] are command key words where Lindy recommend using capital letters.
- 2: [in out] is the parameter. We would recommend using lower case letters.
- 3:'\r\n' or '\r' or '\n' to finish the command is acceptable.
- 4: Use spaces where needed. \times is a space.
- 5: Fixed parameter. SET SW in out[CR/LF]. Only 2 parameters can be accepted.

Function	Command	Example
Switch	Syntax	Example
Input for	Command:	Command:
Output	SET SW in out[CR/LF]	SET SW in1 out1[CR/LF]
	Return:	Return:
	SW in out[CR/LF]	SW in1 out1[CR/LF]
	Parameter:	Description:
	※ <i>in</i> = {in0-in11}; in0表示禁止输出	Switch in1 for out1
	$\approx out = \{out1-out11, all\}$	
	Description:	
	※ SW is short for Switch	
	* Switch one input source for one output sink	
Show the	Suntay	Example
Show the	Syntax	Commandi
lavout	Return:	Return:
layout	Mp in out[CR/LF]	MP in1 out1[CR/LF]
	Parameter:	Description:
	%in = {in0-in11}:	in1 mapping to out1
	*out = {out1-out11 all}:	
	Description:	
	XMP is short for mapping	
	*Get which input mapping to the indicate Output	
	-	
To execute	Syntax	Example
an audio	Command:	Command:
input	SET AUDIOIN in prm[CR/LF]	SET AUDIOIN in1 hdmi/hdbt[CR/LF]
selection	Deturn	Deturn
	Parameter:	Description:
	\therefore in = {in1-in11}	Select the audio from HDMI input for
	\times nrm = {hdmi/hdht_audioin};	input1
	\sim pm – (num/nubt, audioin),	· · · · · · ·
	Description:	

To get	Syntax	Example
audio input	Command:	Command:
status	GET AUDIOIN in[CR/LF]	GET AUDIOIN in1[CR/LF]
	Return:	Return:
	AUDIOMP in out[CR/LF]	AUDIOIN in1 hdmi/hdbt[CR/LF]
	Parameter:	Description:
	※ in = {in1-in11, all};	Get the audio source of the in1, the
	<pre>※ prm = {hdmi/hdbt, audioin};</pre>	result is hdmi.
	Description:	
To set	Syntax	Example
output	Command:	Command:
resolution	SET VIDOUT RES out prm[CR/LF]	SET VIDOUT RES out1 5[CR/LF]
	Return:	Return:
	VIDOUT RES out prm[CR/LF]	VIDOUT RES out1 5[CR/LF]
	Description:	Description:
	\mathbf{X} out = {out1~out11}	Set HDMI out resolution is
	$% \text{ prm} = \{1 \sim 26\}$	1280x720@60.
	{1 · 3840x2160@60	
	2: 3840x2160@30	
	3: 1920x1200@60	
	4 : 1920x1080@60	
	5: 1280x720@60	
	6: 1600x1200@60	
	7: 1280x800@60	
	8:1024x768@60	
	9: AUTO(preferred native timing of the display)}	

To show	Syntax	Example
	Command	Command
oulput		
resolution		
	Return:	Return:
	VIDOUT_RES out prm[CR/LF]	VIDOUT_RES out1 1[CR/LF]
	Description:	Description:
	X out = {out1~out4,all}	out1 resolution is Fix
	i ≫ prm= {101~108}	3840x2160@60.
	NULL Display not detected	
	0: Display don't support current selected	
	resolution	
	$1 \cdot \text{Eiv} 3840 \text{v} 2160 @ 60$	
	1 : 11x 3840x2160 @ 00	
	2. FIX 3040X2100@30	
	7: FIX 1280X800@60	
	8: Fix 1024x768@60	
	101 : Auto 3840x2160@60	
	108 : Auto 1024x768@60}	
To execute	Syntax	Example
a sink	Command:	Command:
power by	SET CEC PWR out prm[CR/LF]	SET CEC PWR out1 on[CR/LF]
CEC		
	Return:	Return:
	CEC PWR out prm[CR/LF]	CEC PWR out1 on[CR/LF]
	Parameter:	Description [.]
	\dot{X} out = $\int out1$ out11 all	Set sink nower on
	ж рип = {on,oп}	
	Description:	
	-	
	Set sink power on or off	

Set CEC	Syntax	Example
auto power	Command:	Command:
on / off	SET AUTOCEC_FN out prm[CR/LF]	SET AUTOCEC_FN out1 on[CR/LF]
	Return:	Return:
	AUTOCEC_FN out prm[CR/LF]	AUTOCEC_FN out1 on[CR/LF]
	Parameter:	Description:
	i ≫ out = {out1~out11,all};	Set sink auto power ON
	$% prm = {on,off}$	
	Description:	
	Set sink auto power Function ON or OFF	
Get CEC	Syntax	Example
Auto Power	Command:	Command:
On/Off	GET AUTOCEC_FN out[CR/LF]	GET AUTOCEC_FN out1[CR/LF]
Status		
	Return:	Return:
	AUTOCEC_FN out prm[CR/LF]	AUTOCEC_FN out1 on[CR/LF]
	Developmenter	Descriptions
		Description:
	× out = {out1~out11,all};	Get Sink auto power status, and the
	× prm = {on,off}	status is ON.
	Descriptions	
	Description:	
	Get Sink auto power Function ON or OFF Status.	
Set CEC	Syntax	Fxample
Power	Command:	Command:
Delay Time	SET AUTOCEC D out prm[CR/LE]	SET AUTOCEC D <i>out1</i> 2[CR/I F]
Dolay Time		
	Return:	Return:
	AUTOCEC_D out prm[CR/LF]	AUTOCEC_D iout1 2[CR/LF]
	Parameter:	Description:
	i i {out1∼out11,all};	when no active signal to out1, 2
	<pre>% prm = {1,2,3,}// according to the actual time</pre>	minutes later, the unit will auto
	counter,1 means 1 minute ,2 means 2 minutes,	power off.
	Default wait time is 2 minutes, Max wait time is 30	
	minutes.	
	Description:	
	AUTOCEC_D is short for CEC auto Power Delay	
	Timing	

Get CEC	Syntax	Example
Power	Command:	Command:
Delay Time	GET AUTOCEC_D out[CR/LF]	GET AUTOCEC_D out1[CR/LF]
Status		
	Return:	Return:
	AUTOCEC_D out prm[CR/LF]	AUTOCEC_D out1 2[CR/LF]
		Description:
	Parameter:	Get out1 auto power delay time, the
	i ≪ out = {out1~out11,all};	result is 2 minutes
	$\%$ prm = {1,2,3,}// according to the actual time	
	counter,1 means 1 minute ,2 means 2 minutes,	
	Default wait time is 2 minutes,Max wait time is 30	
	minutes.	
	Description	
	Description:	
	AUTOLEC_D is short for CEC auto Power Delay	
	Suntax	Example
DIP status	Command:	Command:
Dir Status	GET EDID DIPICR/I FI	
	Return:	Return:
	EDID_DIP prm[CR/LF]	EDID_DIP 0[CR/LF]
	Parameter:	Description:
	<i>※ prm</i> = {0~15}	
	0 : EDID controlled by Web UI and API	
	1 : 4K@60Hz 4:4:4 8bit 2.0ch audio Without	
	HDR	
	2 : 4K@30Hz 4:4:4 8bit 2.0ch audio Without	
	HDR	
	3 : 1080p@60Hz 4:4:4 8bit 2.0ch audio	
	Without HDR	
	415 : Customize,	
	Description:	
	Get EDID DIP status	

Set Input	Syntax	Example
EDID	Command:	Command:
	SET EDID in prm[CR/LE]	SET EDID in1 2[CR/I F]
	Return:	Return:
	EDID in prm[CR/LF]	EDID in1 2[CR/LF]
	Parameter:	Description:
	\approx in = {in1-in11}; // all means all inputs	Set in1 EDID fix 4K@60Hz 4:4:4 8bit
	$\frac{1}{2} = \frac{1}{2} = \frac{1}{2}$	2.0ch audio Without HDR
	$\frac{2}{2} \approx \frac{1}{2} = \frac{1}$	
	◎ 参数抽迹: ,	
	1 : 4K@60Hz 4:4:4 8bit 2.0ch audio Without	
	HDR	
	2 : 4K@30Hz 4:4:4 8bit 2.0ch audio Without	
	HDR	
	3 : 1080p@60Hz 4:4:4 8bit 2.0ch audio	
	Without HDR	
	}	
	Description:	
	Set Input EDID	
	Curretov	
	Syntax	Example
status	GET EDID IN [CR/LF]	
	Poturp:	Potura
		Description
	Parameter	Cot in 1 EDID Status, the result is five
	$x = \{101 - 1011, 311\};$	
	i ≫ prm = {1 ~ 3}	
	参数描述:	
	{	
	1 : 4K@60Hz 4:4:4 8bit 2.0ch audio Without	

	HDR 2 : 4K@30Hz 4:4:4 8bit 2.0ch audio Without HDR 3 : 1080p@60Hz 4:4:4 8bit 2.0ch audio Without HDR } Description: Get all input EDID Status	
Factory	Syntax	Example
Reset	Command:	Command:
	RESEI[CR/LF]	RESEI[CR/LF]
	Return:	Return:
	RESET[CR/LF]	RESET [CR/LF]
	Parameter:	Description:
		Factory reset all board
	Description:	
	Factory reset	
System	Syntax	Example
Reboot		
	REBOOT prm [CR/LF]	
	Return:	Return:
	REBOOT prm[CR/LF]	REBOOT all [CR/LF]
	Parameter:	Description:
	$\approx prm = \{all, mainboard, ledboard, card1, mainboard, ledboard, ledboard, ledboard, ledboard, ledboard, ledboard, ledbo$	System reboot
	card2card12}	
	Description	
	system reboot	

Get IP	Syntax	Example
address	Command:	Command:
	GET IPADDR [CR/LF]	GET IPADDR [CR/LF]
	Return:	Return:
	XXX.XXX.XXX.XXX[CR/LF]	XXX.XXX.XXX.XXX[CR/LF]
	Parameter:	Description:
		get ipaddr
	Description:	
	get ipaddr	
Get	Syntax	Example
selected	Command:	Command:
target	GET VER target [CR/LF]	GET VER all [CR/LF]
firmware		
version	Return:	Return:
	VER target prm[CR/LF]	VER mainboard 1.2[CR]
		VER ledboard 1.3[CR]
	Parameter:	VER card 1.4[CR/LF]
	* target={all, mainboard, ledboard, card1,	
	card2card12}	Description:
	<pre>※ prm = {}// according to actual firmware</pre>	Get all module firmware version
	version	
	Descriptions	
	Description:	
	Get selected target innivare version	
Set the	Syntax	Example
System	Command:	Command:
Code of the	SET IR_SYSCODE prm1[CR/LF]	SET IR_SYSCODE 00[CR/LF]
remote		
control	Return:	Return:
	IR_SYSCODE prm1[CR/LF]	IR_SYSCODE 00[CR/LF]
	Parameter:	Description:
	<i>※ prm1</i> = {all, 00,4e};	Set IR system code is 0x00.
	// allmeans support all the system codes of the	
	remote(0x00, 0x4e);	
	00 means only support the system cose is 00	
	4e means only support the system cose is 4e	
	Description:	

Get the	Syntax	Example
System	Command:	Command:
Code of the	GET IR SYSCODE[CR/LF]	GET IR SYSCODE [CR/LF]
remote		
control	Return:	Return:
	IR SYSCODE prm1[CR/LF]	IR SYSCODE 00 [CR/LF]
	Parameter:	Description:
	\therefore <i>prm1</i> = {all 00 4e}. // allmeans support all	IR system code is 0x00.
	the system codes of the remote $(0x00, 0x4e)$:	
	00 - means only support the system case is 00	
	Ae means only support the system cose is Ae	
	Description:	
	Get IR system code	
Save	Syntax	Example
Preset	Command:	Command:
video matrix	SAVE PRESET <i>prm</i> [CR/LF]	SAVE PRESET 1[CR/LF]
	Return:	Return:
	PRESET_V <i>prm</i> [CR/LF]	PRESET 1 [CR/LF]
	Parameter:	Description:
	<i>prm</i> = {1~8}//	
	Description:	
	Save Preset video matrix	
Restore	Syntax	Example
Preset	Command:	Command:
video matrix	RESTORE PRESET prm[CR/LF]	RESTORE PRESET 1[CR/LF]
	Return:	Return:
	PRESET <i>prm</i> [CR/LF]	PRESET 1[CR/LF]
	Parameter:	Description:
	<i>prm</i> = {1~8}//	
	Description:	
	Restore Preset Scene	
Restore Preset video matrix	Return: PRESET_V prm[CR/LF]Parameter: prm = $\{1 \sim 8\}//$ Description: Save Preset video matrixSyntaxCommand: RESTORE PRESET prm[CR/LF]Return: PRESET prm[CR/LF]Parameter: prm = $\{1 \sim 8\}//$ Description: 	Return: PRESET 1 [CR/LF] Description: Example Command: RESTORE PRESET 1[CR/LF] Return: PRESET 1[CR/LF] Description:

EDID Management

The matrix features both Web-Gui and Dipswitch EDID management for ensuring maximum compatibility within an installation.

Please note: the dipswitch has a default of 0000 with all triggers in the upward position as below



Please see below for the dipswitch EDID configurations

DIP			HDMI In	HDBaseT In	
0	0	0	0	EDID Controlled by Web-Gui & API	
0	0	0	1	4K@60Hz 4:4:4 8bit 2.0CH Audio w/o HDR	4K@30Hz 4:4:4 8bit 2.0 CH Audio w/o
					HDR
0	0	1	0	4K@60Hz 4:4:4 8bit 2.0CH Audio w/o HDR	4K@30Hz 4:4:4 8bit 2.0 CH Audio w/o
					HDR
0	0	1	1	4K@30Hz 4:4:4 8bit 2.0 CH Audio w/o HDR	
0	1	0	0	4K@30Hz 4:4:4 8bit 2.0 CH Audio w/o HDR	
0	1	0	1	1920x1080@60Hz 4:4:4 8bit 2.0CH w/o HDR	
0	1	1	0	1920x1080@60Hz 4:4:4 8bit 2.0CH w/o HDR	
Others			Reserved		

Please note:

- When using the EDID Dipswitch on the chassis rear panel, this will set the same EDID for all Inputs.
- When using the EDID Management of the Web-Gui and API, the EDID can be independently changed for each input.
- The EDID setting will be effective immediately

CE/FCC Statement

CE Certification

LINDY declares that this equipment complies with relevant European CE requirements.

CE Konformitätserklärung

LINDY erklärt, dass dieses Equipment den europäischen CE-Anforderungen entspricht

UKCA Certification

LINDY declares that this equipment complies with relevant UKCA requirements.

FCC Certification

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

You are cautioned that changes or modification not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference received, including interference that may cause undesired operation.

The enclosed power supply has passed Safety test requirements, conforming to the US American versions of the international Standard IEC 60950-1 or 60065 or 62368-1.

LINDY Herstellergarantie – Hinweis für Kunden in Deutschland

LINDY gewährt für dieses Produkt über die gesetzliche Regelung in Deutschland hinaus eine zweijährige Herstellergarantie ab Kaufdatum. Die detaillierten Bedingungen dieser Garantie finden Sie auf der LINDY Website aufgelistet bei den AGBs.

Hersteller / Manufacturer (EU):

LINDY-Elektronik GmbH Markircher Str. 20 68229 Mannheim Germany Email: info@lindy.com , T: +49 (0)621 470050

Manufacturer (UK):

LINDY Electronics Ltd Sadler Forster Way Stockton-on-Tees, TS17 9JY England sales@lindy.co.uk, T: +44 (0)1642 754000



WEEE (Waste of Electrical and Electronic Equipment), **Recycling of Electronic Products**

Europe, United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products. More details can be obtained from your national WEEE recycling agency.

Battery Remark:

Do not put empty batteries in your domestic waste bin as they will not be recycled. Empty batteries can be returned for recycling at our trade counter or at your local household recycling centre.

The raw materials enclosed in batteries such as Zinc, Iron and Nickel can be reused to a very large proportion. The recycling of batteries and disused/obsolete electronic equipment is one of the most efficient environment protection actions you can easily take.

Germany / Deutschland

Rücknahme Elektroschrott und Batterie-Entsorgung

Die Europäische Union hat mit der WEEE Direktive Regelungen für die Verschrottung und das Recycling von Elektround Elektronikprodukten geschaffen. Diese wurden im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt. Das Entsorgen von Elektro- und Elektronikgeräten über die Hausmülltonne ist verboten! Diese Geräte müssen den Sammel- und Rückgabesystemen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernehmen die Gerätehersteller.

LINDY bietet deutschen Endverbrauchern ein kostenloses Rücknahmesystem an, beachten Sie bitte, dass Batterien und Akkus den Produkten vor der Rückgabe an das Rücknahmesystem entnommen werden müssen und über die Sammel- und Rückgabesysteme für Batterien separat entsorgt werden müssen. Ausführliche Informationen zu diesen Themen finden Sie stets aktuell auf der LINDY Webseite im Fußbereich.

France

En 2006, l'union Européenne a introduit la nouvelle réglementation (DEEE) pour le recyclage de tout équipement électrique et électronique.

Chaque Etat membre de l'Union Européenne a mis en application la nouvelle réglementation DEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Remarque sur les piles et batteries

En tant que consommateur final, vous êtes tenus de restituer toutes les piles et batteries usagées. Il est clairement interdit de les jeter avec les ordures ménagères ! Les piles et batteries contenant des substances nocives sont marquées par le symbole ci-dessus. Vous pouvez déposer gratuitement vos piles ou batteries usagées dans les centres de collecte de votre commune, dans nos succursales ou dans tous les points de vente de piles ou batteries. Vous respecterez ainsi la loi et contribuerez à la protection de l'environnement !

Italv

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate. Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.

Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

No. 38350-4



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